# STATE OF MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION





LINCOLN PAPER & TISSUE, LLC	) DEPARTMENTAL
PENOBSCOT COUNTY	) FINDING OF FACT AND ORDER
LINCOLN, MAINE	) PART 70 AIR EMISSION LICENSE
A-177-70-J-R/A	· ·

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

# I. REGISTRATION

#### A. Introduction

Lincoln Paper and Tissue, LLC of Lincoln, Maine has applied for a Part 70 Air Emission License renewal permitting the operation of emission sources associated with their pulp and paper manufacturing facility.

FACILITY	Lincoln Paper and Tissue, LLC (LPT)
LICENSE NUMBER	A-177-70-J-R/A
LICENSE TYPE	Part 70 License Renewal
NAICS CODES	322121
NATURE OF BUSINESS	Pulp & Paper Mill
FACILITY LOCATION	50 Katahdin Avenue Lincoln, Maine

Lincoln Paper and Tissue is a manufacturer of fine paper and specialty tissue products headquartered in Lincoln, Maine. The mill consists of a Kraft (chemical pulping) system, tissue and paper production process systems, a pulp dryer process system, and supporting industrial systems, including power and steam production, and wastewater treatment equipment.

LPT has the potential to emit more than 100 tons per year (TPY) of particulate matter (PM), Particulate Matter under 10 micrometers (PM<sub>10</sub>), particulate matter under 2.5 micrometers (PM<sub>2.5</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NOX), and carbon monoxide (CO), more than 50 TPY of volatile organic compounds (VOC), and less than 100,000 tons of non-biogenic carbon dioxide equivalent (CO<sub>2</sub>e); therefore, the source is a major source for criteria pollutants. LPT has the potential to emit more than 10 TPY of a single hazardous air pollutant (HAP) or

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more than 25 TPY of combined HAP; therefore, the source is a major source for HAP.

# B. Emission Equipment

The following emission units are addressed by this Part 70 License:

EMISSION UNIT ID	UNIT CAPACITY	UNIT TYPE
1. Recovery Boiler #2	1.9 MMlb BLS/day Supports 650 ADTPD * (≈ oil heat input of 500 MMBtu/hr)	Fuel Burning #6 oil, ≤2.0% sulfur content (S), on and off-spec waste oil, biofuel, black liquor
2. Power Boiler #6	127 MMBtu/hr	Fuel Burning #6 oil, ≤0.7% S, biofuel, on and off- specification waste oil, natural gas
3. Power Boiler #7	100.1 MMBtu/hr	Fuel Burning #6 oil, ≤0.7% S, biofuel, on and off- specification waste oil, natural gas
4. Power Boiler #8	433 MMBtu/hr	Fuel Burning Fuel oil ≤ 0.5%S, biomass, coal, TDF, construction demo wood, bark and wood waste, biofuel, on and off specification waste oil, solid oily waste, WTP sludge, liquor soap residue, waste paper, TRS/NCGs, natural gas
5. M&D Digester System Kamyr Digester System	650 ADTPD *	Process Equipment
6. Brown Stock Washer System	650 ADTPD washed brown stock *	Process Equipment
7. Bleach/ClO <sub>2</sub> system	Supports 650 ADTPD *	Process Equipment
8. Lime Kiln	47.8 MMBtu/hr Supports 650 ADTPD *	Fuel Burning #6 oil, (≤2.0% S), biofuel, on and off-specification waste oil, TRS/NCGs, natural gas
9. Lime Slaker	190 TPD lime (CaO) * Supports 650 ADTPD	Process Equipment (Hydrates Lime (Ca(OH) <sub>2</sub> ))
10. Causticizers	Supports 650 ADTPD *	Process Equipment (Produces White Liquor)
11. Lime Silo	Storage for lime (CaO)	Process Equipment (Lime storage)
12. Multiple Effect Evaporator System	Supports 650 ADTPD	Process Equipment (Produces Strong Black Liquor Solids)

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13. Smelt Tank	Supports Recovery Boiler firing rate of 1.9 MMlb of dry BLS/day *	Process Equipment (Produces Green Liquor)
14. Waste Treatment Plant (WTP)		Process Equipment (Primary and Secondary Activated Sludge Treatment)
15. WTP Emergency Power Generator (diesel)	11.94 MMBtu/hr (1.3 Megawatt)	Emergency Power to WTP
16. Steam Turbine Generator (TG3)	13.5 MW	Electrical Generation (Does not produce emissions.)
17. Parts Washers	N/A	Process Equipment
18. Pulp Dryer	N/A	Process Equipment
19. No. 4 Paper Machine	N/A	Process Equipment
20. No. 5 Paper Machine	N/A	Process Equipment
21. No 6 Tissue Machine	N/A	Process Equipment
22. No. 7 Tissue Machine	1 burner rated at	Process Equipment
	15.1 MMBtu/hr	Natural gas, propane, biofuel, and #2 fuel oil
23. No. 8 Tissue Machine	2 burner rated at	Process Equipment
	12.5 MMBtu/hr each	Natural gas, propane, biofuel, and #2 fuel oil
24. Diesel Fire Pump	0.8 MMBTU/hr (120 hp)	diesel fuel, $\leq 0.5\%$

NCGs - Non-Condensable Gases

TRS - Total Reduced Sulfur

TDF – Tire Derived Fuel

BLS - Black Liquor Solids

ADTPD – Air Dried Tons of Pulp per Day

\* - Unit capacities for process equipment and pollution control equipment were used to develop license requirements and emission limits during the PSD air licensing of 1991. However, these capacity factors are nominal and listed for informational purposes; therefore, they are not intended as license restrictions.

LPT has additional insignificant activities, which do not need to be listed in the emission equipment table above. The list of insignificant activities can be found in the Part 70 license renewal application and in Appendix B of 06-096 CMR 140 of the Department's Regulations.

# C. Application Classification

The application for LPT does not include the licensing of increased emissions or the installation of new or modified equipment, therefore the license is considered to be a Part 70 License renewal issued under *Part 70 Air Emission License* 

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Regulations, 06-096 CMR 140 (as amended). This renewal includes the requirements from the Part 70 and New Source Review air license amendments subsequently issued since the initial Part 70 air emissions license was issued October 22, 2002. These amendments include: A-177-70-C-A issued January 15, 2004, A-177-70-D-A issued March 5, 2004, A-177-70-B-A issued January 31, 2005, A-177-70-F-A issued June 9, 2005, A-177-70-G-A issued December 9, 2005, A-177-77-1-M issued December 18, 2006, A-177-77-2-M issued April 5, 2007, A-177-70-I-A issued April 5, 2007, A-177-77-3-A issued January 9, 2008, A-177-77-4-A issued September 25, 2008, A-177-70-K-A issued January 13, 2009, A-177-77-5-M issued July 14, 2011, and A-177-77-6-A issued June 13, 2013.

# D. General Facility Requirements

LPT is subject to the following state and federal regulations listed below, in addition to the regulations listed for specific units as described further in this license.

CITATION	REQUIREMENT SUMMARY
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06-096 CMR 101	Visible Emissions
06-096 CMR 102	Open Burning
06-096 CMR 103	Fuel Burning Equipment Particulate Emission Standard
06-096 CMR 105	General Process Source Particulate Emission Standard
06-096 CMR 106	Low Sulfur Fuel
06-096 CMR 109	Emergency Episode Regulation
06-096 CMR 110	Ambient Air Quality Standard
06-096 CMR 116	Prohibited Dispersion Techniques
06-096 CMR 117	Source Surveillance
06-096 CMR 118	Gasoline Dispensing Stations Vapor Control
06-096 CMR 124	Total Reduced Sulfur Control from Kraft Mills
06-096 CMR 130	Solvent Degreasers
06-096 CMR 134	VOC RACT
06-096 CMR 137	Emission Statements
06-096 CMR 138	NO <sub>X</sub> RACT
06-096 CMR 140	Part 70 Air Emission License Regulations
06-096 CMR 143	New Source Performance Standards
06-096 CMR 144	National Emission Standards for Hazardous Air
	Pollutants (NESHAP)
06-096 CMR 148	Emissions from Smaller-Scale Electric Generating
	Sources (WWTP generator was installed prior to 1/1/05)
40 CFR Part 60,	Performance Standards for Steam Generating Units and
Subparts A, BB and Db	Performance Standards for Kraft Mills

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40 CFR Part 63	NESHAPs for Pulp and Paper Industry
Subpart A, MM, & S	
40 CFR Part 63	National Emission Standards for Hazardous Air
DDDDD	Pollutants for Industrial, Commercial, and Institutional
	Boilers and Process Heaters
40 CFR Part 63 ZZZZ	National Emission Standard for Hazardous Air
	Pollutants for Stationary Reciprocating Internal
	Combustion Engines

# II. BEST PRACTICAL TREATMENT (BPT)

#### A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in 06-096 CMR 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;
- the effectiveness of available alternatives for reducing emission from the source being considered; and
- the economic feasibility for the type of establishment involved.

# **Process Description**

LPT is an integrated kraft pulp and paper mill. Currently, LPT operates a hardwood digester and a softwood sawdust digester to produce pulp with approximately 50% recycled content. LPT uses one recovery boiler and a lime kiln in the recaust process for reclamation of the pulping chemicals. Also, LPT has two oil-fired boilers and one multi-fuel boiler to supply the mill with steam. The two paper machines produce specialty paper and the three tissue machines produce single and multi-ply specialty tissue. The pulp dryer machine produces bailed pulp which is either used by LPT or sold to other paper manufacturers.

Pulp from the digesters, called brown stock, is washed in the brown stock washer systems to remove residual spent cooking chemicals from the pulp. After the pulp is washed in the brown stock washers, the pulp is bleached to a desired brightness and then sent to the paper/tissue production area. In the paper/tissue production area the bleached pulp is then used in the paper or tissue machines to make paper or tissue or is dried as bleached pulp.

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The spent cooking liquor exiting the digesters with the pulp, called black liquor, contains dissolved and suspended inorganic and organic compounds. The black liquor, after being washed from the pulp by the brown stock washers, is then sent into the multiple effect evaporation system to evaporate the water and bring the solids in the liquor to a higher concentration. Upon exiting the multiple effect evaporation system, the concentrated black liquor with a black liquor solids (BLS) content of approximately 70%, is burned in the recovery boiler for chemical recovery and the production of steam.

Pulping chemicals recovered after combustion of black liquor in the recovery boilers, primarily sodium and sulfur compounds, are collected in the bottom of the recovery boiler as molten "smelt". The smelt flows out of the bottom of the recovery boiler to a smelt dissolving tank, where the hot smelt mixes with weak wash to form green liquor.

Green liquor from the smelt tank flows to the causticizing/lime kiln area, where the reclaim chemicals are further processed into the white liquor used in the digester system to cook the wood. Lime (CaO) is used in the causticizing process to convert the recovered but inactive sodium compounds into active compounds. The purpose of the lime kiln is to recover and recycle the lime. Hydrated lime from the lime slaker reacts with the green liquor, and calcium carbonate (CaCO<sub>3</sub>) is precipitated out as lime mud.

The lime mud is then washed, filtered, and sent to the lime kiln where the carbon dioxide (CO<sub>2</sub>) is driven off and the recovered lime (CaO) is recycled back into the process. Lime mud enters the upper end of the kiln and is passed through successive stages of water evaporation, mud preheating, and lime calcination. Lime produced in the lime kiln is sent to the slaker along with any fresh lime makeup. In the slaker, the lime is mixed with green liquor to convert the lime into hydrated lime (Ca(OH)<sub>2</sub>). The hydrated lime produced in the lime slaker discharges into the causticizing system. The causticizing system converts the green liquor into white liquor, which is then recycled back to the digester system, as described above.

#### **B.** PSD/BACT Review

In 1991, the Department issued Air License A-177-71-A-R to LPT. This license was issued to permit construction of the No. 8 power boiler and to permit a mill-wide production increase to 650 tons/day. The license was issued pursuant to federal Prevention of Significant Deterioration (PSD) requirements and the Department's air licensing requirements for major modifications. LPT has adjusted/changed/modified pulp and paper processes, including some activities that increased production through efficiency upgrades and had undertook the appropriate air licensing procedures to address these changes. With these

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changes, LPT has not exceeded the 650 tons/day production level licensed in the 1991 PSD air license.

LPT was issued their initial Part 70 Air Emissions License (A-177-70-A-I) on October 22, 2002. Subsequent amendments including New Source Review amendments have been issued since the initial Part 70 air license was issued and will now be incorporated into this Part 70 air license renewal. The air licenses and amendments address Best Available Control Technology (BACT) for the: digesters, brown stock washers, multiple effect evaporators, bleach plant, recovery boiler #2, smelt tank, lime kiln, slaker, causticizer, tissue dryers, paper machines, and mill fugitive particulates which will be incorporated and carried over in this renewal Part 70 air license.

Furthermore, an air impact modeling analysis, based on maximum source-specific allowable emissions and worst-case operating scenarios, resulted in compliance with State and Federal Ambient Air Quality Standards (MAAQS) and increments.

# C. Best Available Retrofit Technology (BART)

A facility is determined to have BART eligible sources if the following criteria are met (40 CFR Part 51 Subpart P and Appendix Y):

- The facility falls into one of the 26 source specific categories identified in the Clean Air Act of 1977,
- The facility has emission units that were not in operation prior to August 7, 1962 but were in existence on August 7, 1977, and
- The facility has the potential to emit more than 250 tons per year of a single visibility impairing pollutant from the units listed in (2) above. (Visibility impairing pollutants include SO<sub>2</sub>, NO<sub>x</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub>.)

LPT was issued a BART determination (A-177-77-3-A) on January 9, 2008 specifically for Recovery Boiler #2. Recovery Boiler #2 was manufactured by Babcock and Wilcox in 1972 and was determined to be the only BART-eligible source at LPT. The Recovery Boiler is used to recover chemicals and produce steam. Emissions exit through two identical 175 foot stacks. The recovery boiler is a straight fire unit burning black liquor, typically without combustion support from oil. Typically, oil is used only during start-ups, shutdowns and to stabilize operation of the boiler.

The Recovery Boiler is exhausted to a wet bottom electrostatic precipitator (ESP) to control particulate emissions. This unit also serves to re-introduce salt cake into the black liquor which further concentrates the solids content.

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#### BART Determination

#### 1. PM

LPT shall control PM and PM<sub>10</sub> emissions from the recovery boiler by using an ESP to achieve the BACT emission level of 0.044 grains per dry standard cubic foot (0.044 gr/dscf) corrected to 8% oxygen. <u>Compliance with the gr/dscf and lb/hr particulate matter limits shall be determined on the basis of stack testing performed once every five years and in accordance with 40 CFR Part 60 Appendix A, Method 5. PM limits may be met by emissions averaging per 40 C.F.R. Section 63.862(a)(ii). SSM events are exempt.</u>

### $2. SO_2$

SO<sub>2</sub> emissions from the recovery boiler shall be controlled to 141 ppmv (dry basis) @ 8% O<sub>2</sub> on a 24-hour block average basis when operating on only black liquor or when firing a combination of black liquor and oil. When the Recovery Boiler is operating on oil alone, the sulfur content shall not exceed 0.7% sulfur by weight or 2.0% sulfur by weight when firing a combination of black liquor and oil. The recovery boiler is fired with fuel oil for startup purposes (in order to initiate Black Liquor Solids (BLS) firing) in addition to shutdowns and other events which require the addition of oil firing.

# 3. NO<sub>x</sub>

Recovery Boiler #2 shall not exceed a NOx limit of 233 ppmv corrected to 8% O<sub>2</sub> on a dry basis. Compliance with the NOx ppmv emission limit shall be on a 24-hr block average basis excluding periods of start-up, shutdown and malfunction (as approved by the Department), demonstrated by means of a CEMS on the stack.

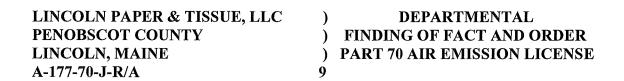
# D. Power Boilers #6, and #7

- Power Boiler #6, license at 127 MMBtu/hr heat input
- Power Boiler #7, licensed at 100.1 MMBtu/hr heat input

Power Boilers #6 and #7 will not be modified, changed, or have their steam production rates increased from current licensed allowed levels. The two power boilers vent through a common 142 foot stack and have a single opacity monitor which monitors the combined emissions. Power Boilers #6 and #7 are licensed to burn fuel oil (#6 fuel oil with a maximum sulfur content of 0.7% by weight), biofuel, #2 fuel oil, on and off-specification waste oil, and natural gas.

# 1. New Source Performance Standards (NSPS)

Power Boiler #6 was manufactured by Erie City in 1976. The size of the boiler is less than New Source Performance Standards (NSPS) applicability for 40



CFR Part 60 Subpart D and prior to the applicable dates for Subpart Db. Boiler #7 was manufactured by Babcock and Wilcox in 1945. Federal regulation 40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr. Federal regulation 40 CFR Part 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, apply to steam generating units with a heat input capacity of 10 MMBtu/hour or more that are constructed after June 9, 1989. Due to their construction dates, Power Boilers #6 and #7 are not subject to either Subpart Db or Subpart Dc.

2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)
Power Boilers #6 and #7 are subject to 40 CFR Part 63, Subpart DDDDD,
National Emission Standards for Hazardous Air Pollutants for Industrial,
Commercial, and Institutional Boilers and Process Heaters (Boiler MACT),
promulgated February 1, 2013. Power Boilers #6 and #7 are considered
existing, large, liquid fuel boilers, per the regulation. LPT will comply with
this subpart in the timeframes specified according to the regulation.

# 3. BPT Emission Limits and Streamlining

For Boilers #6 and #7, a listing of potentially applicable emission standards, the origin and authority of the standards, notation if streamlining of the standards has been requested, and the applicable emission limits and associated averaging periods are presented here for each boiler.

# PM (Particulate Matter)

- a. Fuel Burning Equipment Particulate Emission Standard, 06-096 CMR 103 (as amended), Section 2(A)(1), contains an applicable PM emission standard of 0.20 lb/MMBtu.
- b. 06-096 CMR 140, BACT/BPT (license A-177-70-A-I, October 22, 2002) established an applicable PM limit of 0.15 lb/MMBtu for each Power Boiler. The same BACT/BPT determination also established an applicable PM limit of 19.1 lb/hr for Power Boiler #6 and 15.0 lb/hr for Power Boiler #7.

LPT accepts streamlining for particulate matter requirements. 06-096 CMR 103 (as amended) of the Department's regulations and BPT requirements are applicable. The Best Practical Treatment (BPT) particulate matter limit is more stringent. Therefore, only the more stringent BPT particulate matter limit is included in this license.

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# PM<sub>10</sub> (Particulate Matter with Diameter Less than 10 Microns)

BACT/BPT establishes the applicable PM<sub>10</sub> emission limit when firing #6 fuel oil of 16.5 lb/hr for Power Boiler #6 and 13.0 lb/hr for Power Boiler #7. This emission limit is based on the existing PM filterable limit plus expected condensable emissions calculated using either AP-42 or NCASI emissions factors, which was addressed through A-177-77-6-A issued June 13, 2013. No streamlining is required.

# PM<sub>2.5</sub> (Particulate Matter with Diameter Less than 2.5 Microns)

BACT/BPT establishes the applicable PM10 emission limit when firing #6 fuel oil of 16.5 lb/hr for Power Boiler #6 and 13.0 lb/hr for Power Boiler #7. This emission limit is based on the existing PM filterable limit plus expected condensable emissions calculated using either AP-42 or NCASI emissions factors, which was addressed through A-177-77-6-A issued June 13, 2013. No streamlining is required.

# SO<sub>2</sub> (Sulfur Dioxide)

- a. Low Sulfur Fuel, 06-096 CMR 106 (as amended), Section 2(A)(2) contains an applicable liquid fossil fuel sulfur content standard of 2.1 lb/MMBtu (based on 2% S limit, by weight).
- b. 06-096 CMR 140, BACT/BPT (license A-177-70-A-I, issued October 22, 2002) established applicable SO<sub>2</sub> emission limit of 266.9 lb/hr for Power Boiler #6 and 210.4 lb/hr for Power Boiler #7. The lb/hr emission limits correlates to 2.1 lb/MMBtu based on the maximum rated size of each unit (Power Boiler #6 at 127 MMBtu/hr and Power Boiler #7 at 100.1 MMBtu/hr).

LPT accepts streamlining for sulfur dioxide requirements. 06-096 CMR 106 and BPT limits are applicable. The BPT sulfur dioxide limit is as stringent. Therefore, only BPT requirements are included in this license.

### NO<sub>x</sub> (Nitrogen Oxides)

Previously established BPT for lb/MMBtu  $NO_x$  emissions from Power Boilers #6 and #7 is 0.40 lb/MMBtu and 0.40 lb/MMBtu/hr respectively.

Previously established BPT also establishes a lb/hour NOx limit of 50.8 lb/hr for Power Boiler #6, and 45.1 lb/hr for Power Boiler #7. No streamlining is required.

### CO (Carbon Monoxide)

BPT establishes the only applicable CO emission limits of 26.4 lb/hr for Power Boiler #6 and 20.0 lb/hr for Power Boiler #7. Compliance with the lb/hr emission limits shall be based on stack test upon Department request. Fuel use recordkeeping is required. No streamlining is needed.

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### VOC (Volatile Organic Compounds)

BPT establishes the only applicable VOC emission limits of 1.3 lb/hr for Power Boiler #6 and 1.0 lb/hr for Power Boiler #7. Compliance with the lb/hr emission limits shall be based on stack test upon Department request. Fuel use recordkeeping is required.. No streamlining is needed.

### **Opacity**

a. Visible emissions from any unit firing #4, #5, or #6 fuel oil whose rated input capacity is less than 1000 million BTU/hr shall not exceed an opacity of 30 percent on a six (6) minute block average basis, except for no more than two (2) six (6) minute block averages in a 3-hour period.

When two boilers firing, *Visible Emissions Regulation*, 06-096 CMR 101,§2(B)(5)(a)(i) contains an applicable opacity standard from a combined stack of 30% opacity on a six-minute block average basis, except for no more than three six-minute block averages in a three-hour block period.

b. LPT accepts streamlining for opacity requirements. 06-096 CMR 101 of the Department's regulations and Best Practical Treatment (BPT) requirements are applicable. The Best Practical Treatment (BPT) opacity and 06-096 CMR 101 are the same. Therefore, only the BPT opacity limit is included in this license.

# 4. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping that includes records of fuel use in each unit based on fuel flow meters (gallons) and through purchase receipts indicating percent sulfur by weight.

Continuous emission monitoring includes operation of a continuous monitor for opacity in accordance with the requirements in 06-096 CMR 117 of the Department's Regulations.

### E. Recovery Boiler #2

Recovery Boiler #2 was manufactured by Babcock and Wilcox in 1972. The unit is limited by license to a heat input capacity of 1.9 million pounds (MMlbs) of dry black liquor solids (BLS) per day or 500 MMBtu/hr of #6 fuel oil. The Recovery Boiler is used to recover chemicals and produce steam. Emissions exit through two identical 175 foot stacks. The recovery boiler is a straight fire unit burning black liquor, typically without combustion support from fuel oil. Typically, oil is used only during start-ups, shutdowns and to stabilize operation of the boiler. The recovery boiler can burn on and off specification waste oil which meets the

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Department's waste oil guidance effective March 11, 1994. This unit may also fire diesel or biofuel oil if LPT chooses to use such fuel.

The Recovery Boiler is exhausted to a wet bottom electrostatic precipitator (ESP) to control particulate emissions. This unit also serves to re-introduce salt cake into the black liquor which further concentrates the solids content.

# 1. New Source Performance Standards (NSPS)

Recovery Boiler #2 is not subject to NSPS 40 CFR Part 60, Subpart BB for Kraft Recovery Boilers manufactured after September 24, 1976 or Subpart Db for Steam Generating Units constructed after June 19, 1984. Also, Recovery Boiler #2 is not subject to Subpart D for fossil fuel fired steam generators because its annual capacity factor for fossil-fuel is less than 10%. The unit is also not subject to NSPS due to a modification since the time the unit was installed. This unit was subject to a full BACT analysis as part of the 1991 PSD/NSR licensing of the mill. Although not subject to the NSPS, the unit's emissions are below NSPS standards for particulate and boiler outlet TRS emissions.

# 2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

The recovery boiler is subject to the requirements of NESHAP for Chemical Recovery Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills, 40 CFR Part 63, Subpart MM. Section 63.862 of this Subpart establishes that the owner or operator of each existing Kraft recovery furnace must ensure that the concentration of PM in the exhaust gases discharged to the atmosphere is less than or equal to 0.10 gram per dry standard cubic meter (g/dscm) (0.044 grain per dry standard cubic foot (gr/dscf)) corrected to 8% oxygen.

Recovery Boiler #2 is exempt from 40 CFR Part 63 Subpart DDDDD, *NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters*, per § 63.7491(f) of this Subpart, because recovery boilers are covered by 40 CFR Part 63, Subpart MM.

# 3. Control Equipment

The particulate emissions from Recovery Boiler #2 are controlled by the operation of an Electrostatic Precipitator (ESP). The ESP is a wet bottom design with two chambers and four fields per chamber and is powered by Transformer Rectifier (TR) sets. Improvements to the ESP throughout the years have included improving the flue gas distribution baffles, adding a new

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microcomputer system for control of rapping, and new computer temperature and transistor rectifier controls.

# 4. BPT Emission Limits and Streamlining

Regulated pollutants emitted from the recovery boiler are PM, PM<sub>10</sub>, SO<sub>2</sub>, NOx, CO, VOC, and TRS. Green House Gases (GHG) are also emitted from this unit but are not subject to specific emission limits. The recovery boiler's emissions vent through two separate stacks, therefore, compliance is based on the average emissions from the two stacks (unless the unit is operating through a single stack in which case compliance is based on the single stack data). A BACT analysis was conducted for each pollutant from the recovery boiler, and is considered BPT per this Part 70 air emission license renewal.

# PM and PM<sub>10</sub>

06-096 CMR 105(2) contains an applicable PM emission standard of 4 lb/ADTP for a two-hour sampling period. LPT shall control PM and PM<sub>10</sub> emissions from the recovery boiler by using an ESP to achieve the BPT emission level of 0.044 grains per dry standard cubic foot (0.044 gr/dscf) corrected to 8% oxygen. LPT shall meet the applicable requirements of 40 CFR Part 63, Subpart MM, including the source specific emission limits. BPT also requires LPT to meet a PM and PM<sub>10</sub> mass emission limit of 38.8 lb/hr.

LPT shall stack test the recovery boiler every five years for PM in accordance with 40 CFR Part 60, Appendix A, Method 5.

# $SO_2$

Sulfur Dioxide emissions from the recovery boiler shall be controlled to 141 ppmv (dry basis) @ 8% O<sub>2</sub> on a 24-hour block average basis when firing only black liquor or when firing a combination of black liquor and oil. When firing black liquor efficiently in the Recovery Boiler, SO<sub>2</sub> emissions have been demonstrated to be very low or undetectable. The recovery boiler fires #6 fuel oil. When the recovery boiler is operating (firing fuel and producing steam) on oil alone, the oil fired shall not exceed 0.7% sulfur by weight or 2.0% sulfur by weight when operating on a combination of black liquor and oil. The recovery boiler is fired with fuel oil for startup purposes (in order to initiate BLS firing) in addition to shutdowns and other events which require additional of oil firing. Therefore, periodic monitoring shall consist of records of fuel oil receipts demonstrating sulfur content and records of fuel oil use.

LPT accepts streamlining for sulfur dioxide requirements. 06-096 CMR 106, PSD BACT limits in LPT's 1991 PSD license and BPT limits are applicable.

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06-096 CMR 106 states no facility shall use any residual fuel containing over 2.0 percent sulfur by weight as fired, except that in the Portland Peninsula Air Quality Control Region, no person shall use any residual fuel with a sulfur content greater than 1.5% by weight. The BPT sulfur dioxide limit is the same as the PSD BACT limit and more stringent than the 06-096 CMR 106 limit. Therefore, only BPT/BACT requirements are included in this license.

### $NO_x$

NO<sub>x</sub> RACT for the recovery boiler was determined to be the installation of a NO<sub>x</sub> CEMS and compliance with limits of 06-096 CMR 138 on a 24-hour block average basis. As specified in 06-096 CMR 138, Section 3(O), for any source that employs the use of a continuous emissions monitoring system, periods of startup, shutdown, equipment malfunction and fuel switching shall not be included in determining 24-hour daily block arithmetic average emission rates provided that operating records are available to demonstrate that the facility was being operated to minimize emissions.

To meet BPT, the facility will limit NOx emissions to 233 ppmv (dry basis) @ 8% O2 on a 24 hour block average basis. LPT is limited to a NOx mass emission limit of 210.6 lb/hr.

### CO (Carbon Monoxide)

BPT establishes both a concentration and mass emission limits. To meet BPT, the facility's CO mass emission limit is 320.4 lb/hr. LPT will meet an emission limit of 500 ppmv (wet basis) @ 8% O2. No streamlining is required.

# VOC (Volatile Organic Compounds)

BPT establishes both a concentration and mass emission limits. To meet BPT, the facility's VOC mass emission limit is 73.3 lb/hr. LPT will meet an emission limit of 200 ppmv (wet basis) @ 8% O2. No streamlining is required.

### <u>TRS</u>

Emissions of Total Reduced Sulfur (TRS) from the recovery boiler are to be controlled in accordance with 06-096 CMR 124 and BPT.

### **Opacity**

LPT accepts streamlining for opacity requirements. 06-096 CMR 101, Section 2(B)(2) of the Department's regulations PSD BACT limits and Best Practical Treatment (BPT) requirements are applicable. The BPT opacity limit in this license is as stringent as the limit in 06-096 CMR 101 and the PSD BACT limits in LPT's 1991 PSD/NSR air license. Therefore, only the BPT opacity limit is included in this Part 70 license renewal.

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# 5. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes fuel use records and fuel analysis records provided by the fuel supplier. LPT shall operate monitors and record the following additional parameters as specified for the recovery boiler:

Parameter for recovery boiler	Recording	Demonstrated With
	Frequency	
Black liquor firing rate	once every 24 hours	flowmeter
Black liquor solids	once every 24 hours	refractometer

LPT has submitted sufficient information to the Department demonstrating that SO<sub>2</sub> emissions from the recovery boiler are at a fraction of applicable limits when oil is not burned. When firing black liquor efficiently in the Recovery Boiler, SO<sub>2</sub> emissions have been demonstrated to be very low or undetectable. To assure efficient liquor firing in the Recovery Boiler, LPT will continuously monitor black liquor solids and record once every 24 hours on the operator log. LPT will not fire liquor with solids content below 58% to assure efficient combustion. When oil is fired in the unit, fuel records and sulfur content fuel receipts are required to be maintained to show compliance with SO<sub>2</sub> emissions and a fuel cap is also included in the license.

Continuous emission monitoring also includes operation of continuous monitors for opacity, TRS and NOx in accordance with requirements in 06-096 CMR 117 of the Department's Regulations.

### 6. 40 C.F.R. Part 63, Subpart MM requirements for Recovery Boiler #2

Emission Limit – Section 63.862(a)(i)(A)

D) (	0.044 /1.00.00/.002
PM <sup>-</sup>	$0.044 \text{ gr/dscf} (a) 8\% 02^{-1}$
	J 200 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Monitoring – Sections 63.864(e)(10) and (k)

Opacity	_	Operate continuous opacity monitor.
Average of the two stack	_	Implement corrective actions when the
readings, unless operating on one		average of ten consecutive 6-minute
side of the precipitator		averages results in $> 20\%$ .
	_	Excess opacity ( $>35\%$ ) for $< 6\%$ of sources operating time in a quarter is not a violation.

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Testing – Section 63.865

Testing	Conduct initial compliance test using Method 5 within 180 days of March 14, 2005. Test completed August 23, 2005
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Recordkeeping – Section 63.866

Recordkeeping	<ul> <li>Develop SSM plan.</li> </ul>
	<ul> <li>Maintain records of SSM events.</li> </ul>
	<ul> <li>Maintain records of black liquor solids firing rates (MM lbs/day).</li> </ul>

<sup>&</sup>lt;sup>1</sup> PM limits may be met by emissions averaging per 40 C.F.R. Section 63.862(a)(ii).

# 7. Compliance Assurance Monitoring (CAM) for Recovery Boiler #2

# a. Control Technology:

- 1. Wet bottom electrostatic precipitator.
- 2. Pollutant controlled: PM
- b. <u>Emission Limit:</u> 0.044 gr/dscf at 8% O<sub>2</sub> [CAM applies only to federally enforceable limits]
- c. <u>Indicator Monitored</u>: Opacity.
- d. <u>Analytical Devices Required:</u> Continuous opacity monitoring system (COMS).
- e. <u>Indicator Range and Action Level</u>: Determined based on the average of the two stack readings, when the average of ten consecutive 6-minute averages results in an opacity measurement greater than 20% opacity, corrective action must be taken. See 40 CFR Section 63.864(k)(1)(i). LPT will immediately check the following parameters:
  - ESP primary and secondary voltages on each field, primary and secondary current on each field;
  - Spark rate indicators and ESP T.R. controller alarm.

A violation occurs when opacity is greater than 35% for more than 6% of the operating time within any quarterly period (40 CFR Section 63.864(k)(2)(i)), or when the average of both stacks' respective 6-minute averages exceeds 20% for 2% of all operating 6-minute blocks on a

<sup>&</sup>lt;sup>2</sup> SSM events are exempt.

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quarterly basis or 1% on an annual basis. Periods of startup, shutdown and malfunction may be exempt. LPT will assure efficient combustion by not firing BLS of less than 58%.

- f. <u>Data Requirements:</u> Records of COM data shall be maintained in accordance with 06-096 CMR 117 and 40 CFR Part 63, Subpart MM.
- g. Specific QA/QC Procedures: Calibrate, maintain and operate the COM in accordance with 06-096 CMR 117 of the DEP regulations and 40 CFR Subpart MM.
- h. Rationale for Monitoring Approach: EPA promulgated the National Emission Standard for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semi-Chemical Pulp Mills (i.e., the Pulp and Paper MACT Rule) in 2001. The Pulp and Paper MACT Rule establishes a PM emission limit for recovery boilers of 0.044 gr/dscf corrected at 8% O<sub>2</sub>. As part of the Pulp and Paper MACT Rule, EPA established compliance monitoring that requires recovery boilers equipped with an ESP as a control device to operate a COMS as specified in 40 C.F.R. Section 63.864(d). In accordance with 40 C.F.R. Section 63.4(b)(4), LPT will use the monitoring requirements to demonstrate compliance with the PM limits in LPT's Part 70 air emission license renewal for the recovery boiler.

#### F. Power Boiler #8

Power Boiler #8 was manufactured by McBurney in 1991 with a maximum design heat input capacity of 433 MMBtu/hr. The licensed fuels for Boiler #8 include biomass fuels (e.g; wood chips, bark, saw dust, saw mill wastes, wood systems clean up, bark pile reclaim), coal, fuel oil (<0.5% S), biofuel, waste treatment plant sludge and waste paper from LPT, construction and demolition debris, liquor soap (a wood derived product, aka. tall oil) and tire chips. Also, specification and off-specification waste oil may be burned if the sulfur content is less than 0.5% by weight and the fuel meets waste oil standards (as specified by the DEP) and a record of the quantity of specification waste oil burned is maintained.

In addition, solid oily waste may be burned per Amendment #18 (A-177-71-U-M) issued April 8, 1999 - provided that the following testing be performed:

• LPT shall collect representative solid oily waste samples. The sample of solid oily waste shall be analyzed for TCLP metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag), (any TCLP hazardous waste shall not be burned), PCBs, Total Organic Halogens (TOX), (High) heat value (PCB and TOX levels

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shall meet DEP off-specification requirements), ash content, moisture content and sulfur.

- A record of the tons combusted along with the analytical data shall be maintained.
- The testing of a representative grab sample shall be conducted annually.

# 1. New Source Performance Standards (NSPS)

Federal regulation 40 CFR Part 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 100 MMBtu/hr. Construction of Power Boiler #8 commenced in 1991. Due to the size and construction date, Power Boiler #8 is subject to Subpart Db requirements for PM, SO<sub>2</sub>, NO<sub>x</sub>, and opacity. The applicable NSPS emission standards are addressed in this license.

Power Boiler #8 is not subject to Subpart D because it is subject to Subpart Db and construction commenced after June 19, 1986. In addition, Power Boiler #8 is not an electric utility steam generating unit and is therefore not subject to NSPS Subpart Da.

### 2. National Emissions Standards for Hazardous Air Pollutants (NESHAP)

Power Boiler #8 is subject to 40 CFR Part 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters (Boiler MACT), promulgated February 1, 2013. LPT will comply with this subpart in the timeframes specified in the regulation.

### 3. Control Equipment

Power Boiler #8 is equipped with air pollution control equipment, including a mechanical dust collector and electrostatic precipitator (ESP). LPT operates CEMs for NO<sub>x</sub>, O<sub>2</sub>, and Opacity on the exhaust of Power Boiler #8. Emissions exit through a 237 foot stack.

Power Boiler #8 is used for control of TRS/NCG gases when the lime kiln is not used for such purposes.

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# 4. BPT Emission Limits and Streamlining

Regulated pollutants emitted from the Power Boiler #8 are PM, PM<sub>10</sub>, SO<sub>2</sub>, NOx, CO, and VOC. Power Boiler #8's emissions vent through a 237 foot stack. A BACT analysis was conducted for each pollutant from the power boiler, and is considered BPT per this Part 70 air emission license renewal.

#### Particulate Matter

LPT accepts streamlining for particulate matter requirements. 06-096 CMR 103 of the Department's regulations, PSD BACT limits in LPT's 1991 PSD air license and BPT requirements are applicable. The BPT particulate matter limit (10.7 lb/hr) is the same as the PSD BACT limit, which is more stringent than 06-096 CMR 103. Therefore, only the more stringent BPT/BACT particulate matter limit is included in this license.

#### PM<sub>10</sub> and PM<sub>2.5</sub>

The BPT PM<sub>10</sub> and PM<sub>2.5</sub> emission limits from Power Boiler #8 are each limited to 14.7 lb/hr. These emission limits are based on the existing PM filterable limit from Power Boiler #8 plus expected condensable emissions calculated using either AP-42 or NCASI emissions factors, which was addressed through A-177-77-6-A issued June 13, 2013.

# Sulfur Dioxide

LPT accepts streamlining for sulfur dioxide requirements. 06-096 CMR 106 of the Department's regulations and NSPS and BACT limits in LPT's 1991 PSD/NSR air license are applicable. The BACT limit of 0.5% sulfur fuel oil is more stringent than NSPS or 06-096 CMR 106. Therefore, only the more stringent sulfur limit is included in this license.

### Nitrogen Oxides

LPT accepts streamlining for nitrogen oxide requirements. 06-096 CMR 138 of the Department's regulations, NSPS, BPT and PSD BACT limits in LPT's 1991 PSD air license requirements are applicable. The BPT and BACT limits are the same. The 06-096 CMR 138 and BPT/BACT limits are more stringent than NSPS limits. Therefore, only the more stringent 06-096 CMR 138 and BPT/BACT nitrogen oxides limits are included in this license.

# CO (Carbon Monoxide)

BPT establishes a mass CO emission limit of 302.8 lb/hr and a concentration limit of 0.7 lb/MMBtu/ for Power Boiler #8.

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### **VOC (Volatile Organic Compounds)**

BPT establishes a mass VOC emission limit of 22.5 lb/hr and a concentration limit of 0.052 lb/MMBtu for Power Boiler #8, based on a 1-hr block average. No streamlining is required.

### Opacity

LPT accepts streamlining for opacity requirements. 06-096 CMR 101, Section 2(A)(1) of the Department's regulations, PSD BACT limits in LPT's 1991 PSD air license, New Source Performance Standards (NSPS), and BPT requirements are applicable. The BPT opacity limit is more stringent, therefore, only the more stringent BPT opacity limit is included in this license.

# 5. Periodic Monitoring

Periodic monitoring shall consist of fuel oil supplier receipts showing sulfur content of the oil, and recordkeeping which includes fuel use records and fuel analysis records. LPT shall monitor and record the operating ESP T.R. set voltage and amperage once per shift.

Parameter	Recording Frequency	Demonstrated With
Feed water rate	once every 24 hours	flowmeter
Fuel oil combusted	once every 24 hours when burned	flowmeter
Operating ESP T.R. Set voltage and amp	once per shift	amp meter

Continuous emission monitoring also includes the instrument monitoring and recordkeeping requirements in 06-096 CMR 117 of the Department's Regulations. LPT operates CEMs for  $NO_x$ ,  $O_2$ , and Opacity.

### 6. Compliance Assurance Monitoring (CAM) for Power Boiler #8

# a. Control Technology

- 1. Mechanical dust collector and dry electrostatic precipitator.
- 2. Pollutant controlled: PM
- b. **Emission Limit**: 0.02 lbs/MMBtu (when biomass fuels less than or equal to 10% of total heat input); 0.027 lbs/MMBtu (when biomass fuels greater

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than 10% of total heat input); and 10.7 lbs/hr. See Specific Condition 18(B) of LPT's Part 70 air license.

- c. Indicator Monitored: Opacity.
- d. Analytical Devices Required: Continuous opacity monitoring system.
- e. **Indicator Range**: A violation occurs when a 6- minute average results in an opacity measurement greater than 20% opacity, except for one 6-minute average in an hour not to exceed 27%. Startup, shutdown and malfunction may be exempt. See Special Condition 19(I) of LPT's Part 70 air license.

LPT will immediately check the following parameters:

- Mechanical collectors and inlet and outlet gas temperatures.
- ESP primary and secondary voltages on each field, primary and secondary current on each field, spark rate indicators, gas pressure drop, inlet and outlet gas temperatures, along with power level and T.R. control alarms.
- f. **Data Requirements**: Records of COMS data shall be maintained in accordance with Chapter 117 of the DEP regulations.
- g. **Specific QA/QC Procedures**: Calibrate, maintain and operate the COMS in accordance with Chapter 117 of the DEP regulations.

# G. M&D and Kamyr Digester Systems

The M&D Digester System was manufactured by Bauer in 1976, the Kamyr Digester System was manufactured by Kamyr Inc. in 1958. The M&D and Kamyr Digesters are currently licensed up to 650 tons of finished material per day. Wood sawdust and wood chips are the raw material that enter the digester systems and brown stock pulp is the finished material. The Digester Systems vent to the Low Volume High Concentration (LVHC) system which controls TRS, VOCs and HAPs and meets BPT per 06-096 CMR 115.

The digesters were constructed prior to September 24, 1976 and are therefore not subject to NSPS 40 CFR Part 60 Subpart BB for Kraft Digesters.

The digesters vent to LPT's LVHC system for the purposes of 06-096 CMR 124 and are subject to 40 CFR Part 63, Subpart S per §63.443(a)(1)(i).

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# H. Multiple Effect Evaporator System

The spent cooking liquor exiting the digesters, called black liquor, which contains dissolved and suspended inorganic and organic compounds, goes to the multiple effect evaporation system. In the multiple effect evaporators, water is evaporated out of the liquid to achieve a higher concentration of solids. LPT uses a six-effect evaporation system to increase the black liquor solids to approximately 49% solids by weight. LPT also has one concentrator and one crystallizer to further increase the black liquor solids (BLS) concentration to about 70% by weight.

The multiple effect evaporators were installed prior to September 24, 1976 and are therefore not subject to NSPS 40 CFR Part 60, Subpart BB for Kraft Multiple Effect Evaporators.

# **BPT Emission Limits and Streamlining**

The regulated pollutants emitted from the multiple effect evaporator system are TRS (total reduced sulfur) and methanol, which are collected and incinerated in the lime kiln. To meet BPT, emissions from the evaporators will be controlled by incineration in the lime kiln or Power Boiler #8 (back-up) by the Non-Condensable Gas (NCG) system. 06-096 CMR 124 and VOC RACT requirements apply to this system which meets BPT. LPT shall not vent TRS from the LVHC or associated equipment that is required to be controlled which exceeds 40 minutes in duration or contributes to an aggregate TRS venting of more than 1.0% of quarterly operating time.

The evaporators are part of LPT's LVHC system for the purposes of 06-096 CMR 124 and as such they are subject to 40 CFR Part 63, Subpart S per §63.443(a)(1)(i).

#### I. Brownstock Washer System

The Brown Stock Washer System (BSW) was manufactured by IMPCO in 1958. The BSW is currently licensed up to 650 air dried tons per day. Unwashed brown stock is the raw material that enters this brown stock washer system and washed brown stock is the finished material. The brown stock washer system washes the cooked pulp from the digester in order to remove the residual liquor that would contaminate the pulp during subsequent processing steps, and to recover the maximum amount of spent chemicals with minimum dilution.

The BSW system was installed prior to the applicability date for NSPS 40 CFR Part 60, Subpart BB for Kraft Mill Brown Stock Washers. The washer system is subject to 40 CFR Part 63, Subpart S, Standards for HAPs from the Pulp and Paper Industry as well as 06-096 CMR 124, TRS Control. The BSW system

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vents to the High Volume Low Concentration (HVLC) system in accordance with 06-096 CMR 124 which meets BPT per 06-096 CMR 115.

# Pulp and Paper MACT I - Subpart S Requirements

LPT is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Pulp and Paper Industry contained in 40 CFR Part 63 Subpart S. Under Subpart S, LPT is required to collect and control HAP emissions from the HVLC system, including the knotter, decker, pulp washing and oxygen delignification systems, where applicable, as specified in section 64.443 (a)(1)(ii). In addition to the specifications of section 64.443 (a)(1)(ii), the decker is also subject to collection and control if the shower water contains greater than 400 ppm by weight of HAPS. The collection system meets the requirements as specified in section 63.450 by the compliance deadline.

### **HVLC System**

LPT determined that the HVLC sources subject to 40 CFR Part 63, Subpart S are the Brownstock Washers (BSW) and the foam tank. Emissions from the knotter/screens are below the 0.3 lb MeOH/ODT pulp threshold and shower water on the decker is below 400 ppm MeOH. Based on this assessment, LPT is required to capture and control 98% of the MeOH emissions from the BSW hoods and the foam tank pursuant to 40 CFR Part 63, Subpart S. Methanol removal requirements are met using a combination of the Clean Condensate Alternative (CCA), as allowed by section 63.447 (which allows for alternative controls of non-regulated sources provided it achieves equivalent reductions in HAPs), and MeOH scrubbing. The MeOH scrubber condenses the MeOH which is then piped to LPT's licensed sealed sewer system to the waste water treatment (WTP) for treatment. LPT submitted its CCA plan to the Department and EPA Region I through letters dated April 5, 2007 and August 13, 2007.

To accomplish the equivalent of 98% capture and control of MeOH emissions from the BSW and foam tank, the Department determined that LPT meets the Clean Condensate Alternative and beyond compliance control of non-regulated condensate streams through the following. Significant reduction in MeOH emissions from the BSW is achieved by the low-flow hoods. The balance of the BSW MeOH and MeOH emissions from the foam tank is collected and routed to a scrubber. Additional non-regulated sources of MeOH emissions are captured in the HVLC collection system from the screens, deknotter, and Oo blow tank. This will assure that even if the scrubber is not 98% efficient that sufficient MeOH has been collected to meet the required mass removal rate of Subpart S.

LPT's wastewater treatment plant is licensed under the 40 CFR Part 63 rules for the treatment of MeOH from digester and evaporator condensates. The plant is

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required to demonstrate destruction of at least 92% of the MeOH collected from the condensate sources.

LPT has determined the brownstock washers and foam tank are the only HVLC sources of TRS emissions subject to the collection requirements of 06-096 CMR 124. Testing of the knotter/screens and the decker showed these sources to be below the 0.75 lb/hr TRS threshold. To meet the BPT requirements of 06-096 CMR 124 and 40 CFR Part 63 Subpart S LPT installed low-flow hoods on the BSW and collects emissions from these new hoods and the foam tank. The combined gas stream is then piped to a caustic scrubber followed by a ClO<sub>2</sub> gasmixing chamber to control TRS.

# 06-096 CMR 124 Requirements

LPT is subject to 06-096 CMR 124, Total Reduced Sulfur Control from Kraft Pulp Mills, of the Department regulations. Under 06-096 CMR 124, LPT was required to collect and control TRS emissions greater than 0.75 lb/hr from the brownstock washer system and foam tank to meet the conditions of section (3)(A) of 06-096 CMR 124. Compliance with BPT and 06-096 CMR 124 for control of TRS from LPT's applicable sources was achieved July 2007. The BPT projects and compliance with the brownstock washer control requirements was done through scrubbing as outlined in the HVLC system description in the Subpart S requirements section.

### J. Bleach Plant and Chlorine Dioxide (ClO<sub>2</sub>) Generation

The Bleach Plant and ClO<sub>2</sub> generating system was manufactured by IMPCO. The Bleach Plant is currently licensed to support up to 650 air dried tons of pulp per day. This system was initially manufactured in 1958. Unbleached pulp is the raw material that enters the Bleach Plant and bleached pulp is the finished material. In the ClO<sub>2</sub> generating process, sodium chlorate reacts with methanol in the presence of sulfuric acid to form ClO<sub>2</sub> and a spent acid stream containing formic acid and an acidic salt cake. The bleach plant utilizes ClO<sub>2</sub> as a bleaching agent.

In 1999, LPT installed a new pollution prevention bleaching technology which was licensed by the Department through air emission license amendment A-177-71-V-M issued April 6, 1999. This process allowed a change from bleaching with chlorine to bleaching with oxygen. The new bleaching process is now  $A_DO_0DD$ . The first stage is an activation stage to lower pH and to activate the pulp to increase the oxygen reaction sites. This is followed by an oxygen bleaching stage and two  $ClO_2$  bleaching stages.

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# 1. <u>BPT Emission Limits and Streamlining</u>

To meet BPT, emissions from the chlorine dioxide generation plant and some bleach plant vents are combined with the HVLC gasses which destroy the ClO2. Any residual remaining is treated with an atomizing wet spray scrubber using white liquor or liquor used on the digesters. The unit is not subject to 06-096 CMR 101 because emissions are overwhelmingly water vapor. BPT also requires the facility will limit ClO<sub>2</sub> to 3.0 lb/hour.

The Bleach Plant and ClO<sub>2</sub> generation plant were subject to the requirements of 06-096 CMR 122, however, that regulation has recently been repealed. 06-096 CMR 122 established an emission limit for bleach plants of pulp and paper mills, however, because 40 CFR Part 63 Subpart S (63.445), which includes the Maximum Available Control Technology Requirements for air toxics, is applicable now and is more comprehensive than 06-096 CMR 122, the regulation was repealed. The Bleach Plant, but not the ClO<sub>2</sub> generating plant, is subject to 40 CFR Part 63, Subpart S, Standards for HAPs from the Pulp and Paper Industry, requirements.

# 2. Periodic Monitoring

LPT shall operate monitors and record the following parameters as specified for BPT for ClO2:

Parameter for each scrubber	Recording Frequency	Demonstrated With
Scrubber flow	once per shift	flow-meter

EPA granted approval by letter dated September 3, 2001, for LPT's request to monitor fan amperage for the bleaching system gas scrubber vent gas fan in lieu of monitoring vent gas inlet flow rate.

LPT has demonstrated that it can meet the Subpart S emission outlet concentration limit of 10 parts per million or less by volume of total chlorinated HAP by process modifications alone as specified in 63.445 (b). LPT has demonstrated through stack test demonstrations that the process modifications have been effective in reducing uncontrolled emissions of chlorinated HAP to less than 10 ppm and therefore, operation of this scrubber is not necessary to achieve compliance with the MACT requirements.

On October 25, 2005, LPT conducted a 30-minute test run on the scrubber inlet with the ClO2 plant down to confirm the alternate compliance parameter monitoring of the D1 uptube temperature and to establish a second backup

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parameter monitor. Cl2 emissions from the scrubber inlet were 5.0 ppm. This test run demonstrated that with the D1 uptube temperature greater than 140° F, bleach plant Cl2 emissions were less than 10 ppm.

LPT shall operate monitors and record the following parameters as required by 40 CFR Part 60 Subpart S:

Parameter for each scrubber	Recording Frequency	Demonstrated With
Fan amperage	once per shift	amp meter
D1 uptube temperature	once per shift	thermocouple

#### K. Lime Kiln

The lime kiln was manufactured by Allis-Chalmers in 1958. The lime kiln is currently licensed to support up to 650 air dried tons of pulp per day (approximately 190 tons per day of 100% CaO). The Lime Kiln is a rotary kiln unit licensed to fire #6 fuel oil with a sulfur content not to exceed 2.0% by weight, it can also fire on and off-specification waste oil, natural gas, and biofuel. The lime kiln is equipped with a 48 MMBtu/hr burner and is used to control NCG's from the LVHC system when such gases are not combusted in No. 8 power boiler. The Lime Kiln is used to recover lime (CaO) from lime mud (a product of the causticizing of green liquor). Lime is then reused in the regeneration of white liquor. The lime kiln is equipped with a wet scrubber to control the emissions of PM, PM<sub>10</sub>, SO<sub>2</sub>, and TRS. The Lime Kiln is equipped to continuously monitor and record venturi scrubber pressure drop and media flowrate, O2, and TRS. As part of its Continuous Monitoring System (CMS), LPT will measure scrubber media flow with a minimum of 600 gallons per minute (gpm) and a minimum DP of 18" H2O (both on a 3 hour average) and four shower bars will be maintained on the mud filter showers.

The lime kiln is subject to the requirements of 40 CFR Part 63, Subpart MM for Chemical Recovery Sources at Pulp Mills.

### 1. BPT Emission Limits and Streamlining

#### Particulate Matter

LPT accepts streamlining for particulate matter requirements. 06-096 CMR 105 of the Department's regulations, BPT and PSD BACT limits in LPT's 1991 PSD license are applicable. The BPT and BACT limits are the same and are more stringent than 06-096 CMR 105. The BPT/BACT particulate matter limit requires LPT to limit PM/PM10 to 0.13 gr/dscf @ 10% O2 and 20.9 lb/hr. However, the

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lime kiln is subject to the requirements of 40 CFR Part 63, Subpart MM which limits PM emissions to 0.064 gr/dscf @10% O<sub>2</sub>.

### PM<sub>10</sub> and PM<sub>2.5</sub>

The BPT PM<sub>10</sub> and PM<sub>2.5</sub> emission limits from the Lime Kiln are each limited to 21.7 lb/hr. These emission limits are based on the existing PM filterable limit from the Lime Kiln plus expected condensable emissions calculated using either AP-42 or NCASI emissions factors, which was addressed through A-177-77-6-A issued June 13, 2013.

### Sulfur Dioxide

LPT accepts streamlining for sulfur dioxide requirements. 06-096 CMR 106, BPT and PSD BACT limits in LPT's 1991 PSD air license limits are applicable. The BPT and BACT sulfur dioxide limit are the same and are more stringent than 06-096 CMR 106. Therefore, only BPT/BACT requirements are included in this license. LPT will limit SO<sub>2</sub> emissions to 50 ppmv wet basis @ 10% O<sub>2</sub> on a 3-hour average and 14.1 lb/hr.

# Nitrogen Oxides

LPT accepts streamlining for nitrogen oxide requirements. 06-096 CMR 138 of the Department's regulations, BPT and PSD BACT limits in LPT's 1991 PSD air license requirements are applicable. The BPT and BACT limits are the same. The BPT limits incorporates the 06-096 CMR 138 requirements. The more stringent 06-096 CMR 138 and BPT/BACT nitrogen oxides limits are included in this license. LPT will limit NOx emissions to 120 ppmv wet basis (or equivalent dry basis (236 ppmv dry basis) taking into consideration stack moisture content and correcting to 10% O<sub>2</sub>) on a 3-hour average. BPT mass emission limit is 40.4 lb/hr.

# CO (Carbon Monoxide)

BPT establishes a mass CO emission limit of 27.1 lb/hr and a concentration limit of 220 ppmv wet basis @ 10% O<sub>2</sub> (3 hour average). No streamlining is required.

### **VOC (Volatile Organic Compounds)**

BPT establishes a mass VOC emission limit of 1.8 lb/hr and a concentration limit of 25 ppmv wet basis @ 10% O2 (3-hour average). No streamlining is required.

### TRS (Total Reduced Sulfur)

BPT establishes a TRS concentration emission limit of 20 ppmv wet basis @ 10% O2 (12-hour block average). TRS limit demonstrated by CEMS. No streamlining is required.

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# 2. Periodic Monitoring

Periodic monitoring shall consist of recordkeeping which includes fuel use records and fuel analysis records. LPT shall operate and record the following monitors as specified for the lime kiln in accordance with 40 CFR Part 60 Subpart MM:

Parameter	<b>Recording Frequency</b>	Demonstrated With	
	1	The Artifician Committee of the Committe	
Scrubber pressure drop	continuous	differential pressure	
		gauge	
Scrubber media flowrate	continuous	flowmeter	

# 3. 40 C.F.R. Part 63, Subpart MM requirements for the Lime Kiln

Emissions Limit – Section 63.862(a)(i)(c)

Monitoring – Sections 63.864(e)(10), (j) and (k)

Pressure drop, scrubbing liquid flow rate		Establish operating ranges during initial performance test.
	-	Record once every 15 minutes.
	_	Implement corrective action if a 3-hour average is outside of established parameter range.
		Violation only if six or more 3-hour parameter values are outside approved parameter range in a 6 month reporting period.

# Testing – Section 63.865

Testing	_	Conduct initial compliance test using Method 5 within 180 days of March 14, 2005. Testing
		completed September 7, 2005

# Recordkeeping – Section 63.866

Recordkeeping	-	Develop SSM plan.
	_	Maintain records of SSM events.
		Maintain records of CaO production rates (ton/day).

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<sup>&</sup>lt;sup>1</sup> PM limits may be met by emissions averaging per 40 C.F.R. Section 63.862(a)(ii).

<sup>2</sup> SSM events are exempt.

# 4. Compliance Assurance Monitoring (CAM) for the Lime Kiln

EPA promulgated the National Emission Standard for Hazardous Air Pollutants for Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-Alone Semi-Chemical Pulp Mills (i.e., the Pulp and Paper MACT Rule) in 2001. The Pulp and Paper MACT Rule establishes a PM emission limit for lime kilns of 0.064 gr/dscf corrected to 10% O<sub>2</sub>.

### a. Control Technology

- 1. Wet scrubber.
- 2. Pollutant controlled: PM
- b. Emission Limit: 0.064 gr/dscf corrected to 10% O2.
- c. <u>Indicator Monitored:</u> Pressure drop and scrubbing liquid flow rate, each measured at least once each successive 15-minute period.
- d. <u>Analytical Devices Required:</u> Monitors for pressure drop and scrubbing liquid flow rate.
- e. <u>Indicator Range:</u> When the three hour average pressure drop or scrubbing liquid flow rate readings is below 18 inches H<sub>2</sub>O or 600 gpm, respectively, LPT shall take corrective action. See 40 CFR Section 63.864(k)(1)(ii). A violation occurs when six or more three hour average parameter values within any six month reporting period are outside the established parameter range. See 40 CFR Section 63.864(k)(2)(iii). Deviations from these parameters ranges due to startup, shutdown and malfunction are not included in determining the number of 3-hour averages in excess of parameter values. Ranges may be reestablished as provided in 40 CFR Part 63, Section 63.864(j).
- f. <u>Data Requirements:</u> Records of parameter data shall be maintained in accordance with 40 CFR Section 63.866.
- g. <u>Specific QA/QC Procedures:</u> Calibrate, maintain and operate the parameter monitors in accordance with 40 CFR Section 63.864.

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h. Rationale for Monitoring Approach: To demonstrate continuous compliance the Pulp and Paper MACT Rule requires lime kilns equipped with a wet scrubber as a control device to monitor pressure drop and the scrubbing liquid flow rate. See 40 C.F.R. Section 63.864(e)(10). In accordance with 40 C.F.R. Section 63.4(b)(4), LPT will meet the Pulp and Paper MACT monitoring requirements for compliance with the PM limits set forth in that rule.

#### L. Lime Slaker

Lime produced in the lime kiln discharges into the lime slaker along with any fresh lime makeup. In the slaker, the lime is mixed with green liquor to convert the lime into hydrated lime (Ca(OH)<sub>2</sub>). This mixture is fed to the slaker-causticizer assembly and converted to white liquor which is used in the digester. Lime slakers are not addressed by NSPS 40 CFR Part 60, Subpart BB nor 40 CFR, Part 63.

# 1. BPT Emission Limits and Streamlining

### Particulate Matter

Particulate emissions from the slaker are controlled using a wet scrubber. Wet scrubbing is considered the most appropriate control alternative for this type of source because the scrubbing media can be reused in the process. The 1991 PSD air license sets forth BACT limits for the lime slaker.

LPT is granted a quarterly 16 hour exemption for short term downtime of the slaker scrubber for maintenance activities and cleaning of the slaker scrubber. The hours of cleaning this equipment shall be documented in a log. To meet BPT, the facility will operate the scrubber system and limit PM/PM10 emissions to 0.73 lb/hr each.

### 2. Periodic Monitoring

LPT shall operate monitors and record the following parameters as specified for the lime slakers:

Periodic monitor	Recording Frequency	Demonstrated With
scrubber pressure drop	Once per shift	differential pressure gauge
scrubber media flowrate	Once per shift	flowmeter

### M. Causticizer

The hydrated lime produced in the lime slaker discharges into the causticizing system. The causticizing system converts the green liquor into white liquor, which is then recycled back to the digester system. LPT's causticizing system

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includes four causticizing tanks, the first of which has a vent which discharges through a demister pad to the atmosphere.

Particulate emissions from the causticizer are controlled by a wet demister pad scrubber. This control is appropriate for this type of source and is considered BPT. Also, BPT requires the PM/PM<sub>10</sub> emissions be limited to 1.9 lb/hr each.

Causticizers are not addressed by New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart BB nor 40 CFR Part 63.

### N. Lime Silo

The Lime Silo, installed in 1958, stores lime and controls particulate emissions by use of a fabric filter baghouse dust collector. Emissions from this system consists primarily of PM. The silo is equipped with a baghouse to control emissions to 10% opacity on a six-minute block average basis except for one six-minute block in a one hour period. Loading of the Lime Silo is supervised and an alarm for over-pressurization of the lime silo is present.

The Department has determined that a fabric filter bag house dust collector and the opacity requirement constitute BPT for this source.

#### O. Smelt Tank

The Smelt Tank was manufactured by Hamilton and Son Inc. and installed at LPT in 1972. During the combustion of black liquor in the Recovery Boiler #2, the heating value of the lignin is released and the cooking chemicals are recovered as either smelt or salt cake. Pulping chemicals left over after combustion of black liquor in the recovery boiler, which is primarily sodium and sulfur compounds, collect in the bottom of the recovery boiler as molten "smelt". The smelt flows out of the bottom of the recovery boiler to the smelt dissolving tank, where the hot smelt mixes with water and weak wash to form green liquor. Steam is generated and vented from the smelt tank.

LPT was granted per license Amendment #21 (A-177-71-X-M) a quarterly 16 hour exemption for short term downtime on the Smelt Tank's particulate control equipment for cleanings of the demister pad. The hours of cleaning this equipment shall be documented in a log.

The Smelt Tank was constructed prior to September 24, 1976 and is therefore not subject to NSPS 40 CFR Part 60, Subpart BB for Kraft Smelt Tanks. However, the smelt tank is subject to 40 CFR Part 63, Subpart MM, Standards for Hazardous Air Pollutants from Chemical Recovery Combustion Sources at Kraft Pulp Mills.

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# 1. <u>BPT Emission Limits and Streamlining</u>

# PM/PM10 (Particulate Matter)

LPT controls PM emissions from the Smelt Tank using a demister with a limit of 0.2 lb/ton BLS. Particulate emissions from smelt tanks are comprised of finely divided smelt particles that become entrained in the exhaust gases. Demisters, or mist eliminator pads, are constructed with fine wire mesh. Droplets condense on the mesh and are washed back into the smelt tank by water sprays or weak wash.

LPT accepts streamlining for particulate matter requirements. 40 CFR Part 63, §63.862(a)(1)(i)(B) and BPT requirements are applicable. The Best Practical Treatment (BPT) particulate matter limit is more stringent. Therefore, only the more stringent BPT particulate matter limit is included in this license.

### SO<sub>2</sub> (Sulfur Dioxide)

LPT accepts streamlining for sulfur dioxide requirements. 06-096 CMR 106, BPT and PSD BACT limits in LPT's 1991 PSD air license limits are applicable. The BPT and BACT sulfur dioxide limit are the same. To meet BPT, the facility will limit SO<sub>2</sub> emissions to 75 ppmv wet basis @ 8% O<sub>2</sub> on a 3-hour average and 4.6 lb/hr.

# TRS (Total Reduced Sulfur)

BPT establishes a TRS concentration emission limit of 0.033 pound per ton of Black Liquor Solids (BLS) dry weight. No streamlining is required.

### 2. 40 C.F.R. Part 63, Subpart MM requirements for the Smelt Tank

Emissions Limit – Section 63.862(a)(i)(B)

PM <sup>1</sup>	0.20 lb/ton of BLS fired <sup>2</sup>
Monitoring – 63.864(e)(14	)
Demister pads <sup>3</sup>	Compliance demonstrated with demister pad bypassed
Testing – Section 63.865	
Testing	Conduct initial compliance test using Method 5     within 180 days of March 14, 2005. Testing     completed August 23, 2005

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Recordkeeping – Section 63.866

Recordkeeping	_	Develop SSM plan.
	_	Maintain records of SSM events.
	-	Maintain records of demister pad being bypassed

<sup>&</sup>lt;sup>1</sup> PM limits may be met by emissions averaging per 40 C.F.R. Section 63.862(a)(ii).

<sup>2</sup> SSM events are exempt.

# P. Tissue Machines #6, #7, and #8

LPT is licensed to operate three tissue machines, Tissue Machine #6 (TM #6), Tissue Machine #7 (TM #7), and Tissue Machine #8 (TM #8). TM #6 is a Beloit machine that was commissioned in 1963 and started in 1964, TM #7 was designed by Holder and was installed in 1978, and TM #8 was designed by Metso and installed in 2006. The machines produce a variety of both colored and white tissues utilizing bleached pulp from the LPT pulp mill. With the exception of the tissue dryer burners on TM #7 and TM #8, the majority of emissions from the manufacturing process of the three tissue machines are water vapor.

The tissue dryer burner for TM #7 will fire biofuel and/or #2 oil with a sulfur content of <0.5% by weight. LPT is also licensed to fire propane and natural gas in both Tissue Machine Dryers (#7 and #8). The ability to burn natural gas in the tissue machine dryers was licensed through, A-177-77-5-M, issued July 2011. The natural gas burner has the same heat input capacity as the existing oil burner at 15.1 MMBtu/hr each. LPT plans to fire natural gas as the primary fuel for the tissue machines. The ability to burn propane or oil is retained in the design in the event there are logistical, economic, or supply factors with firing natural gas. Regulated pollutants from the tissue dryer are PM, PM<sub>10</sub>, PM2.5, SO<sub>2</sub>, NOx, CO, and VOCs.

The burners are capable of operating on any of the licensed fuels to be able to meet the existing air emission license limits. BPT for Tissue Machine #7 is the firing of natural gas, propane, biofuel, or #2 oil and is determined to be good combustion practices.

TM #8 was designed by Metso Paper to run specialty and commodity tissue products. Depending on the grade, the capacity of the TM #8 ranges from 97 to 117 tons per day of finished product. Tissue Machine #8 was licensed through Air Emissions License, A-177-70-F-A, issued June 9, 2005.

Tissue Machine #8 has a two-burner drying hood and emissions exhaust through a single 46-inch diameter stack. Each burner has a maximum heat input capacity of

<sup>&</sup>lt;sup>3</sup> Subpart MM does not specify monitoring for units controlling PM with demister pads.

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12.5 MMBtu/hr. The burners can fire biofuel and/or #2 oil with a maximum sulfur content of 0.35% by weight,, propane or natural gas. The ability to burn natural gas in the tissue machine was licensed through, A-177-77-5-M, issued July 2011. The natural gas burner has the same heat input capacity as the existing oil burners at 12.5 MMBtu/hr each for TM #8. LPT currently plans to fire natural gas as the primary fuel for the tissue machines.

In addition to the oil and gas fired dryer emissions, LPT has estimated other potential emissions from the tissue making process from TM #6, #7, and #8. The pollutants of interest are particulate and volatile organic compounds (VOC) which could be emitted though the dryer hood. To estimate particulate emissions, LPT relied on factors for particulate emissions of paper/tissue machines available through NCASI. For calculations of VOC emissions, LPT provided information by the chemical manufacturers of the products used on its tissue machines. NCASI also has emission factors for VOC emissions from paper machines associated with the pulp. The estimated additional PM and VOC emissions from the tissue manufacturing process is relatively small, consistent with EPA's findings in the MACT review of paper machine emissions where EPA determined that MACT for paper machine emissions did not require regulation or control.

The following information was determined to be BACT from Air Emissions License Amendment A-177-70-F-A issued June 9, 2005 and is now considered BPT for the #7 and #8 Tissue Machines.

#### PM & PM<sub>10</sub>

Particulate matter emissions from Tissue Machines #7 and #8 comes from the combustion of fuels in the dryer hoods and from dust losses from the drying of the tissue sheet. Natural gas produces significantly less PM emissions than oil Proper combustion performance minimizes particulate emissions associated with the oil burners. BPT for particulate matter emissions will be good combustion practices and combusting biofuels, #2 fuel oil, and/or use of natural gas. BPT for process particulate emissions will be routine periodic cleaning of dust accumulation in the hoods and heat exchangers. Combined particulate emissions will be limited to 0.6 lb/hour from TM #8 and 0.2 lb/hr from #7 TM.

#### $SO_2$

LPT will combust biofuel, natural gas, propane, or #2 fuel oil in the dryer hood with a maximum fuel sulfur content of 0.35% for TM #8 and 0.5% for TM #7 by weight to meet BPT requirements. No further controls are necessary to control SO<sub>2</sub> emissions.

### **NOx**

Available technologies for NOx control and destruction include SCR, SNCR, and flue gas recirculation. These technologies are employed on stand-alone boilers,

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LPT demonstrated these technologies were not feasible under BACT requirements.

Various designs of low NOx burners are also available and are a viable control option for NOx. Three burner designs were considered for the TM #8 hood. The design chosen is a standard burner described by the manufacturer as a low NOx, low CO burner with NOx emissions from this design at 0.27 lbs/MMBtu. The hood system is a design generally utilized for tissue drying and is similar to the #7 TM. The alternative designs considered were the use of water injection with the standard low NOx burner or installing an ultra-low NOx burner. Both can be shown to provide lower levels of NOx, however Metso Paper has never installed this type of equipment on a dryer hood and significant technical concerns were identified therefore the Department did not consider this control technically feasible for this type of equipment. Furthermore, the cost is not economically feasible when evaluated on a cost per ton of pollutant removed basis. BPT for NOx on the TM #7 and #8 hoods will be the use of low NOx burners and limiting emissions to 2.2 lb NOx/hr from #7 TM and 6.7 lb NOx/hr from #8 TM.

# CO

CO emissions from this source are minimal and no control device for CO is available or used for this type of fuel burning equipment. Oxidation catalysts are not a viable technology for this type of burner system.

BPT is met by combustion control through good combustion practices and limiting CO emissions to 0.54 lb CO/hr for TM #7 and 0.9 lb CO/hr for TM #8.

### VOC

VOC emissions from the combustion of biofuel, #2 fuel oil, propane, and/or natural gas are very low. There is no feasible control technology for further reductions in VOC emissions from combustion. VOC emissions off the machine are a function of the VOC content of chemicals added to the pulp in the manufacture of different grades of tissue. Reaction of the chemical, transformation of VOC constituents, and solubility of the VOC all have an important impact on whether VOC in products result in air emissions. EPA determined that no further controls were needed for HAP emissions (many of which were VOC) in its MACT review of paper machines.

BPT for VOC emissions is limiting VOC emissions from each tissue machine dryer to 0.1 lb/hr from fuel combustion. The tissue machine process also emits VOC and will be limited to 2 lb/hr. BPT for VOC emissions from the tissue machines' process will be to continue to review any change in chemistry to assure that, where appropriate, low VOC containing materials continue to be used.

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### **License Limits**

The following license limits apply to emissions from the tissue machines, including emissions from the fuel fired dryers along with particulate and VOC emissions from the processes.

Pollutant	Tissue Machine #7 (lb/hr)	Tissue Machine #8 (lb/hr)	Tissue Machine #8 (tons/year)
PM	0.22 *	0.6 *	2.7*
PM <sub>10</sub>	0.22 *	0.6*	2.7*
$SO_2$	7.7	8.8	39.0
NO <sub>X</sub>	2.2	6.7	29.4
CO	0.54	0.9	3.9
VOC	2.1 *	2.2 *	9.5*

<sup>\*</sup> includes process emissions from the tissue machines

# Visible Emissions

Visible emissions from each tissue machine (TM #7 and TM #8) will not exceed 15% opacity on a 6 minute block average, except for no more than two six minute averages in a 3-hour period. The opacity limit does not apply to the condensed uncombined water vapor due to direct contact with the exhaust gasses.

### Periodic Monitoring

Periodic Monitoring shall consist of record keeping which demonstrates type and quantity of fuel use.

# Q. Waste Treatment Plant (WTP)

LPT operates a wastewater treatment plant on-site. The emissions from the plant are considered fugitive emissions. LPT's wastewater treatment facility is regulated under a Maine Pollution Discharge Elimination System (MEPDES) permit. The operational practice of the treatment facility under these regulatory programs constitutes control of VOC emissions and thus this unit is determined to be meeting VOC RACT and BPT.

### R. WTP Emergency Power Generator

LPT installed an 11.94 MMBtu/hr (1.3 Megawatt) diesel generator in 1996 for temporary power supply to the Wastewater Treatment Plant. The generator is tied

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into the Wastewater Treatment Plant such that it will start automatically in the event of a power interruption. The federal regulation 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines is not applicable to this emergency generator since the unit was ordered before July 11, 2005 and manufactured prior to April 1, 2006.

BPT for all pollutants, for this particular emergency generator, is the limitation on operational hours to 500 hours per year and the use of diesel. When filling the holding tank of the generator from a fuel supplier the sulfur content shall not exceed 0.0015% by weight. Compliance with the operating hours shall be documented by an hour meter on the unit. Compliance with the sulfur content of the fuel oil shall be documented with fuel receipts. A log documenting the date and time of generator start-up and shut-down shall be maintained.

#### 40 CFR Part 63, Subpart ZZZZ

The federal regulation 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines is applicable to the emergency generators listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE) specifically does not exempt these units from the federal requirements.

#### a. Emergency Definition:

<u>Emergency stationary RICE</u> means any stationary reciprocating internal combustion engine that meets all of the following criteria:

- (1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.
- (2) Paragraph (1) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:

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- (i) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
- (ii) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
  - (iii) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (3) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except provided in the following paragraphs:

- (i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution center.
- (ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

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- (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
- (b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
- (c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
- (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
- (e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

The WTP Emergency Power Generator shall be limited to the usage outlined in §63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all the requirements for non-emergency engines.

## b. 40 CFR Part 63, Subpart ZZZZ Requirements:

	Compliance Dates	Operating Limitations* (40 CFR §63.6603(a) and Table 2(d))
Compression ignition	No later than	- Change oil and filter every 500 hours
(diesel, fuel oil) units:	May 3, 2013	of operation or annually, whichever comes first;
WTP Emergency		- Inspect the air cleaner every 1000
Power Generator		hours of operation or annually, whichever comes first, and replace as necessary; and
		- Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace
		as necessary.

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\* Note: Due to the 500 hour operation limit on each generator, the inspections and oil/filter changes shall be performed annually to meet the requirements of 40 CFR Part 63, Subpart ZZZZ.

The generator shall be operated and maintained according to the manufacturer's emission-related written instructions or LPT shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

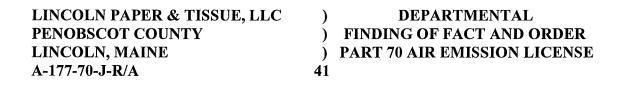
LPT has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, LPT must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR§63.6625(i)]

A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §63.6625(f)]

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

The generator shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

LPT shall keep records that include maintenance conducted on the generator and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity



as specified in §63.6640(f)(4)(ii), LPT must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

If LPT operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), beginning January 1, 2015, the diesel fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015%). Any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR §63.6604(b)]

If LPT operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange However, if the reporting form is not (CDX) (www.epa.gov/cdx). available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

> Director, Office of Ecosystem Protection U.S. Environmental Protection Agency 5 Post Office Square, Suite 100 Boston, MA 02109-3912

[40 CFR §63.6650(h)]

#### S. Diesel Fire Pump

LPT owns and operates a small (0.8 MMBtu/hr) diesel fire pump rated at 120 hp. The fire pump is operated to comply with insurance requirements for fire protection. The BPT emission limits for the generator are based on the following:

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PM/PM<sub>10</sub> – 0.31 lb/MMBtu from AP-42 Table 3.3-1 (dated 10/96)
SO<sub>2</sub> – based on firing 0.05% sulfur, 0.05 lb/MMBtu;
NOx – 4.41 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
CO – 0.95 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
VOC – 0.36 lb/MMBtu, AP-42, Table 3.3-1 (dated 10/96);
Opacity – Visible emissions from the emergency diesel fire pump shall not exceed 20% opacity on a 6 minute block average, except

not exceed 20% opacity on a 6 minute block average, except for no more than two (2) six (6) minute block averages in a 3 hour period.

The unit is subject to 40 CFR Part 63, Subpart ZZZZ requirements for emergency diesel generators as outlined above for the WTP emergency power generator. LPT also owns several other small stationary (<25 hp) engines operated for emergency back-up purposes and subject to 40 CFR Part 60 Subpart ZZZZ.

## T. Pulp Dryer

The pulp dryer was installed around 1952. The dryer uses bleached pulp from the pulp mill to produce baled pulp. Water is removed from the pulp by running the sheet across numerous heated dryer cans. The sheet is cut and packaged so that it can be either shipped for use by customers or used internally within the corporation to meet papermaking requirements. The majority of emissions from this source are water vapor. The majority of emissions are water vapor and therefore BPT is best process/management practices and no add-on control.

#### U. No. 4 and No. 5 Paper Machines

LPT has two paper machines in operation (No. 4 and No. 5 paper machines).

No. 4 paper machine is a traditional Fourdrinier type paper machine that has been in service for over 50 years. No. 4 paper machine produces uncoated printing papers. No. 5 paper machine is also a traditional Fourdrinier paper machine which currently produces uncoated printing papers. Both machines are capable of producing other grades of paper.

The majority of emissions from both paper machines are water vapor and therefore BPT is best process/management practices and no add-on control.

#### V. Parts Washers

LPT operates parts washers in various areas of the mill, based on the solvent used the units may be applicable to Solvent Degreasers, 06-096 CMR 130 (as amended). Periodic monitoring for the parts washers shall consist of recordkeeping including records of solvent added. BPT will require the facility meet all applicable sections of 06-096 CMR 130.

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#### W. Fugitive Emissions

The sawdust handling system, chip handling system and mill roads are considered to be potential sources of minor fugitive particulate emissions and controls are applied to both. An airfoil system for sawdust control has been installed, and an extensive program of paving mill roads was implemented. Unpaved mill roads are treated with a dust suppressant as required.

There is potential for fugitive particulate emissions from the following pieces of equipment from the #8 power boiler fuel handling and preparation facilities.

- Woodwaste receiving
- Wood Screener/Hogger
- Process fuel storage building
- Coal receiving, crushing, and storage
- Bark screener/stone remover
- Sawdust, coal, bark, and biomass conveyors
- Fly-ash handling system

BPT is applied to reduce fugitive particulate emissions from these sources. LPT will follow the fugitive emission plan as outlined below:

- 1. Woodwaste receiving the material delivered to the receiver will be woodwaste with an average moisture content between 40 to 60 percent, which will not significantly contribute to fugitive emissions. Woodwaste will be received in a partially enclosed hopper to provide further fugitive particulate control. Moisture content will be used as fugitive emission control for all fuels stored on the fuel pad prior to processing equipment.
- 2. Wood screener/hogger the screener/hogger building is totally enclosed to prevent fugitive particulate emissions.
- 3. Process fuel storage building woodwaste that has been processed is stored in a totally enclosed storage building.
- 4. Coal receiving, crushing, and storage coal handling facilities are to include a small building for coal receiving and storage and a hopper feeding system. A belt feeder conveys the coal to a crusher. These facilities will be constructed prior to burning coal and will be enclosed to prevent any potential fugitive emissions.
- 5. Sawdust, coal, bark, and biomass conveyors all conveyors are enclosed with half-circle covers, except for the direct conveyor to the boiler that is totally enclosed.
- 6. Power Boiler #8's ash handling system fly-ash is conveyed to an enclosed silo for storage prior to conditioning. Bottom ash is collected and temporarily stored in a water-filled trough, then conveyed to trucks. All ash collection points in the boiler area are enclosed, including bottom

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ash handling. Fly ash from the storage silo is conditioned with water prior to transfer to trucks. Transport of ash to the storage building will utilize unpaved mill roads that are subject to control with dust suppression techniques.

#### X. VOC RACT

The VOC RACT amendment (A-177-71-J-M) was issued on December 18, 1995 and incorporated the requirements of 06-096 CMR 134 of the Department's regulations. LPT operates the following sources which are subject to VOC RACT pursuant to 06-096 CMR 134, Section 3(A) Option D of the Department's regulations:

- a. Bleach Plant/ClO<sub>2</sub> Generation
- b. Waste Water Treatment Plant
- c. Pulp Stock Washer Systems and Pulp Liquor Storage Tanks
- d. Digester System, Multiple Effect Evaporator Systems, Smelt Tank, and the Lime Kiln

Various other sources, including power boilers, the Kraft recovery furnace, the wood yard and the paper and tissue making area are exempt from VOC RACT pursuant to 06-096 CMR 134, Section 1(C) of the Department's regulations.

## Bleach Plant / ClO<sub>2</sub> Generation

The control of emissions from the bleach plant / ClO<sub>2</sub> generation by the bleach plant scrubber system are subject to the applicable parts of 40 CFR Part 63 Subpart S were determined by the Department to meet VOC RACT. The Department determined that additional VOC controls for the bleach plant are not feasible at this time.

## Waste Water Treatment Plant

By Federal Regulation, LPT is required to comply with their National Pollution Discharge Elimination System (NPDES) permit. By operating a wastewater treatment plant under an MEPDES permit, VOC emissions from LPT's waste water treatment facility are controlled; thus the Department determined that LPT's wastewater treatment plant is meeting VOC RACT.

## Pulp Stock Washer Systems and Pulp Liquor Storage Tanks

A VOC RACT economic analysis was conducted on a representative paper mill in Maine. From this analysis, the Department determined that additional VOC controls for this area of the mill is not economically feasible; therefore, it is determined that the current configuration of the pulp stock washer systems and the pulp liquor storage tanks meet VOC RACT.

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## Digester System and the Multiple Effect Evaporator System

The control of the VOC emissions from the digester system and the multiple effect evaporator system by the lime kiln or the back-up incinerator, complies with 06-096 CMR 124 for the control of TRS emissions and is determined to meet VOC RACT. The Department has determined that additional VOC controls for the digester system and multiple effect evaporator systems are not feasible at this time.

#### Smelt Tank

The control of the VOC emissions from the smelt tank complies with 06-096 CMR 124 for the control of TRS emissions and is determined to meet VOC RACT. The Department has determined that additional VOC controls for the smelt tank is not feasible at this time.

## Lime Kiln

The control of VOC emissions from the lime kiln by maintaining adequate combustion conditions to comply with 06-096 CMR 124 for the control of TRS emissions is determined to meet VOC RACT. The Department had determined that additional VOC controls for the lime kiln is not feasible at this time.

#### Y. NOx RACT

The NOx RACT amendment (A-177-71-G-A) was issued on April 16, 1996 and incorporated the requirements of 06-096 CMR 138 of the Department's regulations. The NOx RACT established a lb/MMBtu emission limit, however, the lb/hr limit remained the same as previously licensed. The following emission limits were required per the NOx RACT amendment:

#### Boiler #6

1. The 127 MMBtu/hr #6 boiler shall not exceed the following emission limits:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>(lb/hr)</u>
$NO_X$	0.40	50.8

2. As further described in this section, stack testing to demonstrate compliance with the NOx RACT limit will be required if the boiler is operated at levels greater than the emissions thresholds set forth in 06-096 CMR 138 for auxiliary boilers. If the boiler is operated below such levels, then stack testing is not required. The fuel use threshold that equates to 100 tpy is 3.3 million gallons of No. 6 fuel oil. In either case, LPT will conduct an annual tune-up of the boiler if the boiler is operated more than 1,000 hours in a year.

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- 3. If Boiler #6 is operated more than 1,000 hours in a consecutive 12 month period, it shall have an annual tune-up which focuses on optimization and proper maintenance of the combustion equipment. LPT is subject to the tune-up recordkeeping requirements as specified in Section 3(L)2 of 06-096 CMR 138.
- 4. LPT shall demonstrate compliance with Boiler #6 NOx lb/MMBtu emission limit if fuel usage exceeds 3.3 million gallons on a 12 month rolling total within 60 days (or alternative date approved by the Department) of exceeding the fuel threshold, by stack testing in accordance with 40 CFR Part 60 or other method approved or required by the Department. The last stack test was done on December 18, 2001.
- 5. LPT shall also maintain records of fuel usage and type of fuel updated on a monthly basis.

## Boiler #7

1. The 100.1 MMBtu/hr #7 boiler shall not exceed the following emission limits:

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>(lb/hr)</u>
$NO_{\mathbf{x}}$	0.40	40.1

- 2. As further described in this section, stack testing to demonstrate compliance with the NOx RACT limit will be required if the boiler is operated at levels greater than the emissions thresholds set forth in 06-096 CMR 138 for auxiliary boilers. If the boiler is operated below such levels, then stack testing is not required. The fuel use threshold that equates to 100 tpy is 3.3 million gallons of No. 6 fuel oil. In either case, LPT will conduct an annual tune-up of the boiler if the boiler is operated more than 1,000 hours in a year.
- 3. LPT shall demonstrate compliance with Boiler #7 NOx lb/MMBtu emission limit if fuel usage exceeds 3.3 million gallons on a 12 month rolling total within 60 days of exceeding the fuel threshold or alternate schedule approved by the Department, by stack testing in accordance with 40 CFR Part 60 or other method approved or required by the Department.
- 4. LPT shall also maintain fuel usage and type of fuel updated on a monthly basis.

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#### Boiler #8

1. The #8 multi-fueled fired boiler shall not exceed the following emission limits:

<u>Pollutant</u>	Lb/MMBtu	1b/hour	
$NO_{\mathbf{x}}$	0.45, 0.30	231.3	(based on a twenty four hour block average)

2. Compliance with the NOx RACT emission limit of 0.45 lb/MMBtu emission limit shall be determined by the existing NOx CEM on a 24 hour block average basis excluding periods of start-up, shutdown and malfunction. A 24 hour block average basis shall be defined as midnight to midnight. The NOx CEM will also demonstrate compliance with the 0.30 lb/MMBtu emission limit when firing oil either alone or with other non-fossil fuels based on a 30-day rolling average. LPT shall maintain records demonstrating when oil is fired in the boiler.

#### Recovery Boiler #2

1. The NOx emissions from the Recovery Boiler shall not exceed the following limit:

NOx 233 ppmv (dry basis) @ 8% O<sub>2</sub> dry, 24-hr. block average basis

NOx mass emissions from the #2 Recovery Boiler shall not exceed the following:

<u>Pollutant</u>	<u>lb/hou</u> 1
NOx	210.6

2. LPT operates and certifies a NOx CEMS on the Recovery Boiler #2 that meets the requirements of 06-096 CMR 117 of the Maine DEP Air Bureau regulations. Compliance with the 233 ppmv (dry basis) NOx emission limit, which corresponds to 120 ppmv (wet basis), shall be based on a 24 hour block average basis excluding periods of start-up, shutdown and malfunction. A 24 hour block average basis shall be defined as midnight to midnight.

#### Lime Kiln

1. The lime kiln shall not exceed the following air emission limits:

<u>Pollutant</u>	ppmv	
$NO_{\mathbf{x}}$	236 ppmv dry basis @ 10% O2, 1-hr average basis	40.4

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2. Compliance with the Lime Kiln NOx emission limit of 236 ppmv on a dry basis corrected to 10% O<sub>2</sub>, or equivalent dry basis limit taking into consideration stack moisture content and correcting O<sub>2</sub> to 10%, shall be based on stack tests conducted in accordance with the appropriate EPA test methods (40 CFR, Part 60, Appendix A) as specified in this license on an every other year basis.

## Z. 40 CFR Part 63 Subpart S "Equivalency by Permit"

## Introduction

LPT operates a fully integrated kraft pulp and paper mill in Lincoln, Maine. LPT is subject to the Pulp and Paper Industry NESHAP of 40 CFR Part 60, Subpart S, including the condensate collection and treatment requirements of 40 C.F.R. 63.446. LPT meets the condensate treatment requirements by discharging the condensates below the liquid surface of its biological treatment system (i.e., LPT's aeration basin) as provided in 40 CFR Part 63.446(e)(2). LPT meets the hard pipe condensate conveyance requirements of 40 CFR Part 63.446(d) with the exception that the condensates will pass through the open clarifier prior to the aeration basin, whereas the rule requires a closed system straight to the aeration basin. Therefore, LPT proposed an alternate compliance program, which was approved by the MEDEP and USEPA through 40 CFR 63 Subpart E "Equivalency by Permit". The alternative defined the Part 70 license terms and conditions that are substituted for certain MACT requirements relating to condensate collection and treatment as well as clearly demonstrate that LPT's proposal achieves HAP reductions beyond MACT requirements.

As part of EPA's conditional approval letter dated April 15, 2002, the following "narrative" section is taken from the Equivalency by Permit approved by EPA and incorporated into the LPT's Initial Part 70 Air Emissions License.

## Equivalency by Permit Overview

40 CFR Part 63.446 contains compliance options from the collection of pulp mill condensates and control of those condensates. LPT will meet the requirements in 63.446(c)(3), which requires that at least 11.1 lbs of methanol/oven dried ton (ODT) of pulp be collected and 63.446(e)(3) which requires that these pulping condensates be treated to achieve at least 92% destruction of the HAPs. However, LPT proposed an alternative to the requirement in 63.446(d) which requires that the condensates be transported in a closed collection system (commonly referred to as a "hardpipe" system). Several meetings and conference calls between LPT, MEDEP, and USEPA, were held to discuss LPT's alternative approach to compliance.

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Ultimately, Maine used the legal mechanism outlined in 40 CFR Section 63.94 to write equivalent alternative permit terms through the "Equivalency by Permit" (40 CFR 63 Subpart E) process.

#### Condensate Conveyance Summary

In 1999 a major portion of Lincoln's pulp mill and recovery sewer system was replaced. The project was designed to eliminate potential vents from the sewer system and to establish a separate stormwater sewer for the pulp complex. LPT demonstrated that this upgrade virtually eliminated methanol losses from the sewer. The sewer replacement project was not required for the mill to meet Subpart S. Therefore HAP reductions resulting from the project are considered "beyond compliance" and can be used in the consideration of an equivalency demonstration for an alternative to the condensate collection and treatment requirements in Subpart S.

LPT took additional steps to seal the entire new sewer system up to the wetwell for the pulp mill condensates which conveys both regulated and non-regulated condensates. With those steps, LPT met 40 CFR Part 63 Subpart S and Subpart RR relating to closed systems. This eliminated venting from the process sewer, between the condensate sources and the wetwell area of the wastewater treatment plant. LPT used the newly upgraded sewer system, with further modifications and inspection requirements, to meet the requirements of a closed collection system. The sewer system, meets the individual drain system requirements and conveys all pulp mill regulated and non-regulated condensates to the wastewater treatment plant wetwell.

From the partially sealed wetwell, the wastewater containing the HAPs are pumped to the primary clarifier and then conveyed to the secondary biological treatment system aeration basin through closed piping. The wetwell area and clarifier do not meet the conveyance requirements of 63.446(d) therefore an equivalency demonstration must show that any HAP losses across this component of the system are offset by the benefit of conveying wastewaters containing HAPs exceeding the MACT Rule and other volatile compounds through the closed process sewers. The demonstration of equivalency was made by showing that the losses across the wetwell and primary clarifier are less than the credit gained by the projects LPT had undertaken to close its sewer system. The only relief LPT sought related to not closing the wet well and clarifier and by showing that the projects from sealing the sewer more than made up for not closing these areas.

LPT's operation that sealed the entire pulp process sewer, assured that not only will regulated HAPS be collected in excess of 11.1 lbs/ton but also assured that non-regulated sources of wastewater containing methanol are conveyed to treatment in a closed sewer. LPT receives credit for collecting and controlling non-regulated sources of methanol from the acid and alkaline sewers from the bleach plant. HAP

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losses occur from the wetwell and pulp primary clarifier, however, the losses will be offset by the increased collection of HAPs.

## Alternative Proposal / Actual and Model Test Results

Thus, LPT collects the required 11.1 lb/ODT (based on a 15 day rolling average) of regulated condensates and conveys these streams through a closed system to the wetwell. Past test data showed that LPT conveys approximately 25 lb/ODT to the wetwell, of which approximately 17.6 lb/ODT was from regulated sources and the remainder from sources not regulated by MACT. The reduction from the wetwell and primary clarifier showed an average methanol loss of 3.6 lb/ODT. Actual testing shows approximately 22 lb/ODT being conveyed to the biological system.

LPT has conducted a demonstration that shows the losses from the wetwell, primary clarifier, and the aeration basin are less than the credit (HAP losses eliminated with the sewer rebuild) using the equivalency equation in the license.

## EPA-Approved Alternative Compliance Plan

LPT's alternative plan for achieving compliance with the closed collection requirements in 63.446(d) consists of the following elements. The first element was to demonstrate that the losses across the wet well and primary clarifier were less than the credit by testing and using the equivalency equation in the license, which the initial test and subsequent testing showed. Demonstration of this element can be performed again upon request of EPA or the Department by using a Water9 model. LPT will convey a minimum of 11.1 lbs methanol/ODT (from the regulated sources) on a 15 day rolling average into the biological treatment basin. LPT has a continuous monitoring system to measure the appropriate parameters according to 40 CFR 63.453 (i). LPT is also required to destroy 92% or more of all HAPs (methanol measured as a surrogate to all HAPs) entering the biological treatment basin, including methanol from regulated and non-regulated wastewater streams. Compliance with this element will be demonstrated by sampling HAPs for multizone basins as described in 40 CFR Part 63, Appendix C. Multiple Zone Concentration Measurements (Procedure 5). On-going compliance is explained in more detail in the Side-by-Side Equivalency Table. LPT will inspect each pulping process condensate collection system, which also contains the acid and alkaline wastewater, according to Section 63.453 (1) on a monthly basis as allowed by EPA in its February 21, 2002 letter. Inspections must be performed once during each calendar month, with at least 21 days elapsed time between inspections. Indications of potential venting (i.e., seal cracks, wisps of steam, loss of trap water level, etc.) will be corrected in accordance with 63.965(b).

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#### Condensate Conveyance and Control Summary

On July 15, 2002, LPT performed the initial performance test demonstration in the presence of Department representation. Subsequently, the Department received the initial performance test report detailing results. The Department finds that the July 15, 2002 initial performance test and subsequent test report satisfactorily demonstrate compliance with the collection and treatment requirements that are detailed in Subpart S.

The following sections were Attachments to the Equivalency by Permit, which now are incorporated into the narrative of this Part 70 air emission license renewal.

# LPT Equivalency Calculations approved by EPA

#### Wetwell and Clarifier losses:

During the initial performance test, LPT determined the losses from the wetwell and clarifier and used this data to demonstrate equivalency using the equivalency calculation.

#### Aeration Basin losses:

During the initial performance test, LPT determined the losses from the aeration basin and used this data to demonstrate equivalency through the equivalency calculation.

### Loss calculation:

40 CFR Section 63.446(c) requires sources to get collect a minimum of 11.1 lb/ODT and send it to a control device. Since LPT has left the wetwell and clarifier open, LPT accounted for the losses as a percentage of the 11.1 lb/ODT through the equivalency calculation.

#### Credit calculation:

Before sewer improvements, LPT reported generating 29.25 lb/ODT condensates and wastewater at the point of generation. LPT measured 18.99 lb/ODT at the wetwell. So, 29.25-18.99 = 10.26 lb/ODT collected. EPA took these values from the 2/12/01 summary table of LPT's 4/14/99 tests. However the rule requires 11.1 lb/ODT of the 29.25 lb/ODT to get 100% capture, so only 62.05% of the 10.26 lb/ODT could be used as a credit. Thus 6.37 lb/ODT (62.05% x 10.26) is accountable savings assuming that there were no openings downstream and 100% destruction.

#### Equivalency Calculation:

Since the wetwell and clarifier are open and the aeration basin may not be 100% efficient in destroying HAPs, then LPT must reduce the controlled HAP amount to account for actual losses downstream. To determine equivalency, LPT must use the following equation:

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11.1 lb/ODT (X)  $\leq$  [(6.37 lb/ODT(1 - X)) x (1 - Y)], where

X = percent losses across the wetwell and clarifier determined using the Water9 modeling

Y= percent losses across from the aeration basin determined using Appendix C procedures

# Water Impacts of this project

Regulated HAPs are easily biodegraded in LPT's wastewater treatment system. The additional actions required to meet LPT's alternative effluent compliance proposal will not significantly increase the loading on the system and will not negatively impact treatment capabilities or receiving waters. LPT's effluent proposal is not expected to impact LPT's ability to comply with applicable effluent limitations. LPT's "EnviroO2" project completed in 1999, eliminated the use of elemental chlorine to assure compliance with the effluent guidelines in the Cluster Rule and reduced non-regulated methanol emissions. AOx test results have been at very low levels (0.1 Kg/KKg). LPT is unaware of any other kraft mill achieving this level of performance. Dioxin/furan and chlorophenolics have been non-detect.

# LPT's Wetwell and Primary Clarifier

LPT's wastewater treatment plant (WTP) wet well and primary clarifier serve several functions critical to and consistent with the proper operation of wastewater treatment facilities. The wet well is basically a large concrete tank approximately 30 feet by 8 ½ feet by 10 feet in depth that the process wastewaters enter. The first function of the wet well is to remove large solid materials, in the case of a pulp mill primarily bark and wood debris. These materials are removed as the wastewater passes through a bar screen at the wet well's entrance. The openings in this screen are one inch wide; virtually all debris larger than 1 inch is removed at this point. WTP operators periodically rake the solids trapped by the bar screen and remove them from the process. In the wetwell the wastewater's pH is monitored and, if required, adjusted to optimize the biological treatment process occurring in the secondary treatment process. Lastly pumps transfer the wastewater from the wetwell to the primary clarifier and allows a controlled and sustained level of wastewater to avoid pump cavitation. The wastewater enters the primary clarifier at its center. The clarifier is 110 feet in diameter with a 12 foot side depth. In the primary clarifier the wastewater's velocity or speed of travel is significantly reduced. This lower speed allows the majority of the smaller (less than one inch) solids to settle to the bottom of the clarifier. As the solids settle to the bottom of the clarifier, a submerged, slowly rotating rake at the bottom of the clarifier pushes the settled solids to the center of the clarifier. At the bottom center of the clarifier, the settled solids are removed from the process. The wastewater leaves the clarifier by passing through weirs along the clarifier's perimeter. From this point the wastewater flows by gravity through a

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sealed underground pipe and is discharged below the surface of the secondary treatment process (aeration basin) where biological reduction of HAPs occur.

Adequacy and operation of equipment was subject to Best Practical Treatment (BPT) review during NPDES and Maine wastewater licensing. Hydraulic loading of the pulp primary clarifier is rated to 15.0 million gallons per day as per the design operations manual (E.C. Jordan Company, Inc.). Waste treatment plant operations are conducted in accordance with LPT's MEPDES wastewater license.

If LPT makes any physical change or change in the method of operation of the wetwell or the primary clarifier as stated above, LPT must demonstrate that it still meets compliance with the equivalency calculation.

## Conclusions

The Equivalency by Permit (EBP) was approved by EPA on April 15, 2002 and outlined in the initial Part 70 air emission license conditions and requirements. Based on the information submitted, LPT's alternative plan will achieve equivalent emission reductions of regulated sources required by the NESHAP and additional control of HAPs and volatile compounds. The alternative permit terms and conditions, as stated in the EBP, are incorporated into this Part 70 renewal under the authority of 40 CFR Section 63.94.

## AA. 40 CFR Part 63 Subpart MM Requirements

LPT is subject to the requirements of 40 CFR Part 63, Subpart MM. Subpart MM affected sources are the lime kiln, recovery boiler and the smelt tank. The parameter limits for Subpart MM that have been approved by the Department are set forth in a letter to LPT dated December 5, 2005 which includes the following (These limits may be changed by following the process provided in 40 CFR Part 63 Subpart MM and filing a Part 70 administrative revision):

System	Test Results	<b>Continuous Monitoring System</b>
Lime Kiln	Test date 9/7/05: 0.047 gr/dscf	Scrubber media flow with a minimum of
	(limit of 0.064 gr/dscf)	600 gpm and a minimum DP of 18" H2O
		(both on a 3-hour average) and four
		shower bars will be maintained on the
		mud filter showers (downtime < 1 hr).
		Must not exceed 6 or more 3 hr-averages
		outside of the range in a 6-month period.
Smelt Dissolving Tank	Test date 8/23/05: 0.15 lb/ton	None, demonstrated compliance without
	BLS (limit of 0.20 lb/ton BLS)	control.
Recovery Boiler	Test date 8/23/05: 0.035 gr/dscf	Opacity action level for greater than
	@ 8% O2 (limit of 0.044 gr/dscf)	20% opacity for the average of 10
		consecutive 6-minute averages. Must

not exceed 35% opacity for greater than 6% of the operating time during the
quarterly period.

LPT has conducted stack testing on the recovery boiler, lime kiln and smelt tank demonstrating compliance with the PM limits of Subpart MM in August 2005. This testing has demonstrated that the affected units emit below the applicable Subpart MM limits. LPT shall notify the Department if production rates of the Subpart MM applicable sources exceed 10% of the rates set forth in the Initial Performance Test.

## AB. Compliance Assurance Monitoring (CAM)

LPT prepared and submitted a Compliance Assurance Monitoring (CAM) plan as part of LPT's application for renewal of its Part 70 air emission license. The CAM requirements of 40 C.F.R. Part 64 (incorporated into 06-096 CMR 140 of the DEP regulations) applies to units that: (i) are subject to a federally enforceable emission limitation for an applicable regulated pollutant (except for, inter alia, emissions standards promulgated by EPA after 1990 pursuant to sections 111 or 112 of the Clean Air Act), (ii) use an active control device to achieve compliance with the limit, and (iii) have potential pre-control device emissions of the applicable regulated pollutant that are equal to or greater than 100% of the amount in tons per year, required for a source to be classified as a major source. The emission units at LPT that meet these three criteria are as follows:

- Recovery Boiler for particulate matter (PM);
- No. 8 Power Boiler for PM; and
- Lime Kiln for PM

The CAM requirements are specified in **Section II E**, **F**, and **K** for each of the applicable units mentioned above.

#### III. Facility Emissions

The following is the sum of all emission limits established in this license (for all emission equipment in section I. B. of this Part 70 air license renewal).

# Annual Emissions for the Facility (used to calculate the license fee)

Pollutant	Tons/Year (tpy)
PM	433
$PM_{10}$	418
$SO_2$	2348
$NO_X$	2301
CO	2959
VOC	432

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The ton per year emissions listed above are based on the following emission rates per unit, which are the estimated contribution on a per unit basis used to determine total facility-wide tpy emissions for air license fee purposes only:

<b>Emission Unit</b>	PM	PM <sub>10</sub>	SO <sub>2</sub>	NO <sub>x</sub>	CO	VOC
Figure 1 to 1 t	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)	(tpy)
Power Boiler #6	37.2	29.6	182.0	99.0	49.5	2.5
Power Boiler #7	37.1	29.6	182.0	111.5	49.5	2.5
Power Boiler #8	46.9	46.9	1170.8	973.1	1326.3	98.6
Recovery Boiler #2	169.9	169.9	655.7	880.0	1403.4	301.1
Smelt Tank	34.6	34.6	20.1			
Lime Kiln	91.5	91.5	61.8	176.9	118.7	7.9
Slaker & Causticizer	11.4	11.4				
Paper & Tissue	3.7	3.7	72.7	39.0	6.1	18.8
Machine dryers						
WTP diesel gen	0.7	0.7	3.1	22.5	5.5	0.8

Calculations of the above ton/year emission rates were determined assuming constant operation of each emission unit at maximum capacity, unless the unit is limited by the license to a less than maximum firing rate or hours of operation or annual fuel limitations. In each case that limits were imposed, the combination of operating conditions that would produce the greatest emissions was considered. Previously licensed emission limits were used when possible including short term mass emissions limits (lb/hr) calculated over a full year based on operating 24 hours per day 7 days per week.

#### Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011 through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans*, 40 CFR Part 52, Subpart A, §52.21 Prevention of Significant Deterioration of Air Quality rule. "Greenhouse gases" as defined in 06-096 CMR 100 (as amended) means the aggregate group of the following gases: Carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Greenhouse gases (GHG) for purposes of licensing are calculated and reported as carbon dioxide equivalents (CO<sub>2</sub> e).

Based on the facility's fuel use limit(s), the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, LPT is above the major source threshold of 100,000 tons of CO<sub>2</sub>e per year. There are currently no applicable requirements associated with greenhouse gas emissions from the facility.

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## IV. AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations 06-096 CMR 140, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. At this time, LPT is not proposing any new equipment, therefore the existing modeling used for Air Emissions License A-177-71-A/R demonstrates compliance with ambient air quality standards and increments and additional modeling is not required for this renewal.

## **ORDER**

Based on the above Findings and subject to conditions listed below, the Department concludes that emissions from this source:

- will receive Best Practical Treatment;
- will not violate applicable emissions standards
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants the Part 70 License A-177-70-J-R/A pursuant to 06-096 CMR 140 and the preconstruction permitting requirements of 06-096 CMR 115 and subject to the standard and special conditions below.

All federally enforceable and State-only enforceable conditions in existing air licenses previously issued to LPT pursuant to the Department's preconstruction permitting requirements in 06-096 CMR 108 or 115 have been incorporated into this Part 70 license, except for such conditions that MEDEP has determined are obsolete, extraneous or otherwise environmentally insignificant, as explained in the findings of fact accompanying this permit. As such the conditions in this license supersede all previously issued air license conditions.

Federally enforceable conditions in this Part 70 license must be changed pursuant to the applicable requirements in 06-096 CMR 115 for making such changes and pursuant to the applicable requirements in 06-096 CMR 140.

For each standard and special condition which is state enforceable only, state-only enforceability is designated with the following statement: **Enforceable by State-only**.

<u>Severability</u>. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

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#### STANDARD STATEMENTS

- (1) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both; [06-096 CMR 140]
- (2) The Part 70 license does not convey any property rights of any sort, or any exclusive privilege; [06-096 CMR 140]
- (3) All terms and conditions are enforceable by EPA and citizens under the CAA unless specifically designated as state enforceable. [06-096 CMR 140]
- (4) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license; [06-096 CMR 140]
- (5) Notwithstanding any other provision in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 140]
- (6) Compliance with the conditions of this Part 70 license shall be deemed compliance with any Applicable requirement as of the date of license issuance and is deemed a permit shield, provided that:
  - A. Such Applicable and state requirements are included and are specifically identified in the Part 70 license, except where the Part 70 license term or condition is specifically identified as not having a permit shield; or
  - B. The Department, in acting on the Part 70 license application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the Part 70 license includes the determination or a concise summary, thereof.
    - Nothing in this section or any Part 70 license shall alter or effect the provisions of Section 303 of the CAA (emergency orders), including the authority of EPA under Section 303; the liability of an owner or operator of a source for any violation of Applicable requirements prior to or at the time of

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permit issuance; or the ability of EPA to obtain information from a source pursuant to Section 114 of the CAA.

The following requirements have been specifically identified as not applicable based upon information submitted by the licensee in an application.

SOURCE	CITATION	DESCRIPTION	BASIS FOR DETERMINATION
Facility	06-096 CMR 107	Sulfur Dioxide Standards for Sulfite Pulp Mills	LPT is not a sulfite pulp mill
Facility	06-096 CMR 111	Petroleum Liquid Vapor Storage Control	Fuel oil stored at the facility has a vapor pressure below threshold limits
Facility	06-096 CMR 123	Paper coating operations	LPT does not coat paper
Facility	06-096 CMR 132	Graphic Arts- Rotogravure and Flexography	No rotogravure or flexography printing presses
Facility	06-096 CMR 145	NOx Control Program	No units subject to this
Smelt tank, Evaporators, Recovery Boiler #2, lime kiln	40 CFR Part 60, Subpart BB	Standards of Performance for Kraft pulp mills	Emission units constructed prior to September 24, 1976.
Lime Kiln	06-096 CMR 106	Low Sulfur Fuel	Not subject to 2% limit because equipped with approved sulfur removal device.
Recovery Boiler #2 & Power Boiler #8	06-096 CMR 104	Incinerator Particulate Emission Standard	Units are not considered incinerators per definition of this rule.
Causticizers, Bleach Plant, Kamyr and M&D Digesters	06-096 CMR 101	Visible Emissions	These sources emissions are not subject to 06-096 CMR 101 because emissions are primarily water vapor.
Boilers #6 & #7	40 CFR 60 Subpart D, Db, Dc	NSPS for Steam Generating Units	Units not subject to D based on size, units not subject to Db and Dc based on applicable installation dates, units installed before 1971.
Boiler #8	40 CFR 60 Subpart D	NSPS for Fossil-Fuel- Fired Steam Generators	Boiler #8 is subject to Subpart Db and construction commenced after June 19, 1986
Boiler #8	40 CFR 60 Subpart CCCC	Standards of Performance for Commercial and Industrial Solid Waste Incineration	Boiler #8 is considered a boiler and not an incinerator.

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Boiler #8	40 CFR 60 Subpart Dc	NSPS for Steam Generating Units less than 100 MMBtu/hr	Boiler #8 is greater than 100 MMBtu/hr
Recovery Boiler #2	40 CFR 60 Subpart D, Db, Dc	NSPS for Steam Generating Units	Construction of the recovery boiler was commenced in 1972 and the unit's annual fossil fuel capacity factor is less than 10%
Facility	40 CFR 60 Subpart Da	NSPS for Electric Utility Steam Generating Units	Facility is not an electric utility
Boilers #6, #7, #8	40 CFR 60 Subpart E	NSPS for Incinerators	Units do not burn solid waste consisting of more than 50% municipal waste
Coal Handling	40 CFR 60 Subpart Y	NSPS for Coal Preparation Plants	Facility is not a coal preparation plant
Facility	40 CFR 60 Subpart RR	Pressure Sensitive Tape and Label Surface Coating	No applicable sources at this facility
Boiler #8	40 CFR 61 Subpart E	National Emission Standards for Mercury	LPT does not incinerate municipal waste water sludge
Boilers #6, #7, #8	40 CFR Parts 72 thru 78	EPA Acid Rain Program	LPT is not an electric utility unit.

[06-096 CMR 140]

- (7) The Part 70 license shall be reopened for cause by the Department or EPA, prior to the expiration of the Part 70 license, if:
  - A. Additional Applicable requirements under the CAA become applicable to a Part 70 major source with a remaining Part 70 license term of 3 or more years. However, no opening is required if the effective date of the requirement is later than the date on which the Part 70 license is due to expire, unless the original Part 70 license or any of its terms and conditions has been extended pursuant to 06-096 CMR 140;
  - B. Additional requirements (including excess emissions requirements) become applicable to a Title IV source under the acid rain program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the Part 70 license;

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- C. The Department or EPA determines that the Part 70 license contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Part 70 license; or
- D. The Department or EPA determines that the Part 70 license must be revised or revoked to assure compliance with the Applicable requirements.

The licensee shall furnish to the Department within a reasonable time any information that the Department may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the Part 70 license or to determine compliance with the Part 70 license.

[06-096 CMR 140]

(8) No license revision or amendment shall be required, under any approved economic incentives, marketable licenses, emissions trading and other similar programs or processes for changes that are provided for in the Part 70 license. [06-096 CMR 140]

#### STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions and this license (38 M.R.S.A. §347-C);
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 140; [06-096 CMR 140]
- (3) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request; [06-096 CMR 140] **Enforceable by State-only**
- (4) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to 38 M.R.S.A. §353-A.
- (5) The licensee shall maintain and operate all emission units and air pollution control systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions; [06-096 CMR 140]

  Enforceable by State-only

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- (6) The licensee shall retain records of all required monitoring data and support information for a period of at least six (6) years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings (or electronic reports/data can replace original strip chart recordings) for continuous monitoring instrumentation, and copies of all reports required by the Part 70 license. The records shall be submitted to the Department upon written request or provisions accordance with other of this license: [06-096 CMR 140]
- (7) The licensee shall comply with all terms and conditions of the air emission license. The submission of notice of intent to reopen for cause by the Department, the filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for the renewal of a Part 70 license or amendment shall not stay any condition of the Part 70 license. [06-096 CMR 140]
- (8) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
  - A. perform stack testing under circumstances representative of the facility's normal process and operating conditions:
    - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions;
    - 2. to demonstrate compliance with the applicable emission standards; or
    - 3. pursuant to any other requirement of this license to perform stack testing.
  - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
  - C. submit a written report to the Department within thirty (30) days from date of test completion.

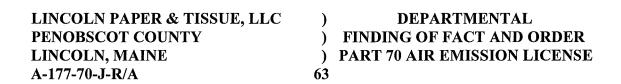
[06-096 CMR 140] Enforceable by State-only

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- (9) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicates emissions in excess of the applicable standards, then:
  - A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
  - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
  - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

## [06-096 CMR 140] Enforceable by State-only

- (10) The licensee shall maintain records of all deviations from license requirements. Such deviations shall include, but are not limited to malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emission unit itself that is not consistent with the terms and conditions of the air emission license.
  - A. The licensee shall notify the Commissioner within 48 hours of a violation of any emission standard and/or a malfunction or breakdown in any component part that causes a violation of any emission standard, and shall report the probable cause, corrective action, and any excess emissions in the units of the applicable emission limitation;
  - B. The licensee shall submit a report to the Department on a <u>quarterly basis</u> if a malfunction or breakdown in any component part causes a violation of any emission standard, together with any exemption requests.
    - Pursuant to 38 M.R.S.A. § 349(9), the Commissioner may exempt from civil penalty an air emission in excess of license limitations if the emission occurs during start-up or shutdown or results exclusively from an unavoidable



malfunction entirely beyond the control of the licensee and the licensee has taken all reasonable steps to minimize or prevent any emission and takes corrective action as soon as possible. There may be no exemption if the malfunction is caused, entirely or in part, by poor maintenance, careless operation, poor design or any other reasonably preventable condition or preventable equipment breakdown. The burden of proof is on the licensee seeking the exemption under this subsection.

C. All other deviations shall be reported to the Department in the facility's semiannual report.

[06-096 CMR 140]

- (11) Upon the written request of the Department, the licensee shall establish and maintain such records, make such reports, install, use, and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 140]
- (12) The licensee shall submit semiannual reports of any required periodic monitoring. All instances of deviations from Part 70 license requirements must be clearly identified in such reports. All required reports must be certified by a responsible official. [06-096 CMR 140]
- (13) The licensee shall submit a compliance certification to the Department and EPA at least annually, or more frequently if specified in the applicable requirement or by the Department. The compliance certification shall include the following:
  - (a) The identification of each term or condition of the Part 70 license that is the basis of the certification;
  - (b) The compliance status;
  - (c) Whether compliance was continuous or intermittent;
  - (d) The method(s) used for determining the compliance status of the source, currently and over the reporting period; and
  - (e) Such other facts as the Department may require to determine the compliance status of the source;

[06-096 CMR 140]

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#### **SPECIFIC CONDITIONS**

- (14) LPT shall meet the following requirements for Recovery Boiler #2:
  - A. The emissions from Recovery Boiler #2 shall not exceed the following limits: [MEDEP 1991 PSD license (A-177-71-A/R), 1996 NOx RACT license (A-177-71-G-A), 06-096 CMR 140, BPT]

PM	$0.044 \text{ gr/dscf} @ 8\% \text{ O}_2$ (stack test basis)
$SO_2$	141 ppmv (dry basis) @ 8% O <sub>2</sub> , 24 hr. block average basis (stack test basis)
NOx	233 ppmv (dry basis) @ 8% O <sub>2</sub> , 24-hr. block average basis (CEM basis)
CO	500 ppmv (wet basis) @ 8% O <sub>2</sub> (stack test basis)
VOC	200 ppmv (wet basis) @ 8% O <sub>2</sub> (stack test basis)
TRS	5 ppm @ 8% O <sub>2</sub> , 12 hr. block average basis, at the recovery boiler outlet*
	15 ppm @ 8% O <sub>2</sub> , 12 hr. block average basis, at the ESP outlet* (CEM basis)

- \* Limits do not apply during first 24 hours of start-up.
- B. Mass emissions from the Recovery Boiler #2 shall not exceed the following: [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT] **State Enforceable Only**

Pollutant	lb/hour	
PM	38.8	
PM <sub>10</sub>	38.8	
SO <sub>2</sub>	149.7	
NOx	210.6	
CO	320.4	
VOC	73.3	

C. LPT shall continuously monitor TRS from the Recovery Boiler #2 from the outlet of the ESP by using a CEM according to 06-096 CMR 117. TRS shall not exceed 40 ppm @ 8% O<sub>2</sub> (dry basis) averaged from the east and west stacks combined, for the first 12 hours during start-up and TRS shall not exceed 25 ppm (averaged from the east and west stacks combined) for the second 12 hours of start-up. The recovery boiler, at times, also operates with total flow through a single stack. In this event, TRS compliance would be based on the reading from the single stack. [MEDEP 1991 PSD Permit (A-177-71-A/R)]

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Except for the first 24 hours of start-up, Recovery Boiler #2 shall not exceed a TRS limit of 15 ppm corrected to 8% O<sub>2</sub> measured as H<sub>2</sub>S. Compliance with the TRS ppm emission limit shall be on a 12-hr block average basis and demonstrated by means of a CEMS on the stack. [06-096 CMR 124, TRS] [06-096 CMR 140, BPT]

Hourly TRS concentrations will be averaged from data recorded from both stacks' TRS monitors. The recovery boiler, at times, also operates with total flow through a single stack. In this event, TRS compliance would be based on the reading from the single stack and not averaged with zero emissions from the other stack. Non-compliance determination and reporting will be based on the combined stack average TRS concentration corrected to 8% O<sub>2</sub> for a 12-hr block average basis.

The quarterly reports will contain the total number of twelve (12)-hour block averaging periods in violation of license limits for the quarter, which include periods of start-up, shutdown or malfunction, but exclude periods when LPT is not operating. The following periods of excess emissions are not a violation of 06-096 CMR 124 or of this license:

- For Recovery Boiler #2, the first two twelve (12)-hour block averages in a quarter which exceed either license limits or the emission standards of Section 3(H) or 3(I) of 06-096 CMR 124. [06-096 CMR 124, BPT]
- D. During start-up, the SO<sub>2</sub> limit in condition 14(A) does not apply. During start-up hourly oil combustion rates shall not exceed 1,357 gal/hour of #6 fuel oil with a sulfur content not to exceed 2.0% by weight or 0.7% based on operating scenarios in condition (20). [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]
- E. LPT shall maintain records of annual #6 fuel use indicating the quantity of fuel consumed (gallons) and the percent (%) sulfur content of the fuel by weight demonstrated by purchase records from the supplier. The sulfur content of the fuel oil fired in Recovery Boiler #2 shall not exceed 0.7% or 2.0% by weight based on operating scenarios in condition (20). A log of when oil or biofuel is fired shall be maintained. LPT may also burn biofuel, diesel, and on/off specification waste oil in Recovery Boiler #2. [A-177-77-1-M issued 12/18/06, 06-096 CMR 140, BPT]
- F. Recovery Boiler #2 shall not exceed an SO<sub>2</sub> emission limit of 141 ppmv corrected to 8% O<sub>2</sub> on a dry basis. Compliance with the SO<sub>2</sub> lb/hr and ppmv emission limits shall be determined by stack testing using 40 CFR Part 60 Appendix A, Method 6. Stack testing shall be done within 90 days upon receipt

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of the Department's request. [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]

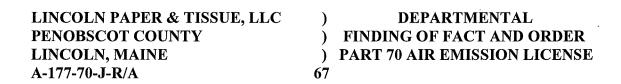
- G. To assure efficient black liquor firing in Recovery Boiler #2, LPT shall continuously monitor black liquor solids content fired and record once per shift in the operators' log. LPT shall not fire black liquor with solids content below 58% to assure efficient combustion. [06-096 CMR 140, BPT].
- H. Recovery Boiler #2 shall not exceed a limit of 0.044 grains/dscf corrected to 8% O<sub>2</sub> for PM. Compliance with the gr/dscf and lb/hr particulate matter limits shall be determined on the basis of stack testing performed once every five years and in accordance with 40 CFR Part 60 Appendix A, Method 5.
  [A-177-70-K-A issued 1/13/09, 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]
- I. Recovery Boiler #2 is subject to the requirements of NESHAP for Chemical Recovery Sources at Kraft, Soda, Sulfite, and Stand-Alone Semichemical Pulp Mills, 40 CFR Part 63, Subpart MM as described in Section II E. (6) of the Finding of Fact section of this air license.
- J. LPT shall maintain the following:

Parameter for recovery boiler	Recording Frequency	Demonstrated With
Black liquor firing rate	once every 12 hours	flowmeter
Black liquor solids	once every 12 hours	refractometer
Operating ESP T.R. set voltage and amp	once every 12 hours	amp meter

[A-177-70-G-A issued 12/5/05, 06-096 CMR 140, BPT]

K. Recovery Boiler #2 shall not exceed a NOx limit of 233 ppmv corrected to 8% O<sub>2</sub> on a dry basis. Compliance with the NOx ppmv emission limit shall be on a 24-hr block average basis excluding periods of start-up, shutdown and malfunction, demonstrated by means of a CEMS on the stack.

Hourly NOx concentrations will be averaged from data recorded from both stacks' NOx monitors. The recovery boiler, at times, also operates with total flow through a single stack. In this event, NOx compliance would be based on the reading from the single stack and not averaged with zero emissions from the other stack. Non-compliance determination and reporting will be based on the combined stack average NOx concentration corrected to 8% O<sub>2</sub> dry basis for a



24-hr block average. [MEDEP 1996 NOx RACT Permit (A-177-71-G-A), 06-096 CMR 38, NOx RACT]

L. LPT has installed, calibrated and shall maintain on each stack of Recovery Boiler #2 a COM in accordance with 06-096 CMR 117. An averaging of opacity recorded from each stack's COM will be used for compliance purposes. However, the recovery boiler, at times, also operates with total flow through a single stack. In this event, opacity compliance would be based on the reading from the single stack and not averaged with zero emissions from the other stack. [A-177-70-B-C issued 1/31/05, 06-096 CMR 140, BPT]

Visible emissions from Recovery Boiler #2 shall not exceed an opacity of 20 percent (based on the average of both stacks respective 6 minute block averages or from a single stack per scenario stated above) for 98 percent of all six (6) minute block averages on a quarterly basis and 99 percent of all six (6) minute block averages on an annual basis. Periods of start-up, shutdown and malfunctions are included for the purpose of calculating six (6) minute block averages over 20 percent under this subsection. Quarterly basis is the period of time from January 1 to March 31, April 1 to June 30, etc.

[A-177-70-B-C issued 1/31/05, 06-096 CMR 140, BPT]

Beginning March 12, 2004, Kraft Recovery Boiler units are required to implement corrective action, as specified in the startup, shutdown, and malfunction plan prepared for each unit under 40 CFR 63.866(a), when the average of ten (10) consecutive six (6) minute block averages results in a measurement greater than 20 percent opacity. [06-096 CMR 101]

LPT may still apply for exemptions due to start-up, shutdown, malfunction as allowed for per 38 M.R.S.A. Section 349 Subsection 9 for visible emissions exceeding the allowances. [38 M.R.S.A Section 349 Subsection 9]

- (15) Power Boiler #6 shall comply with each of the following: [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]
  - A. Power Boiler #6 shall fire #6 fuel oil with a sulfur content not to exceed 0.7% by weight. Power Boiler #6 may fire natural gas, biofuel, and on/off-specification waste oil. Refer to Condition (20) for operating scenarios. [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]
  - B. LPT shall do annual boiler instrumentation calibrations and clean burner tips, atomizing diffusers, and oil strainers on an as needed basis to maintain efficient boiler operation as part of Best Practical Treatment. If Power Boiler #6 is operated more than 1,000 hours in a consecutive 12 month period, it shall have

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an annual tune-up which focuses on optimization and proper maintenance of the combustion equipment. LPT is subject to the tune-up recordkeeping requirements as specified in Section 3(L)2 of 06-096 CMR 138. [06-096 CMR 138, BPT & 06-096 CMR 140, BPT] State Enforceable Only

- C. LPT shall maintain records of annual #6 fuel, biofuel, natural gas and on/off specification waste oil use indicating the quantity of fuel consumed (gallons). LPT shall also keep records of the #6 fuel oil percent (%) sulfur content by weight demonstrated by purchase records from the supplier. [06-096 CMR 140, BPT] For #6 fuel oil:
  - Until December 31, 2017, the sulfur content of the #6 fuel oil fired shall not exceed 0.7% by weight. [06-096 CMR 106]
  - Beginning January 1, 2018, the #6 fuel oil fired shall not exceed a maximum sulfur content limit of 0.5% by weight. [38 MRSA §603-A(1) and (2)] **State Enforceable Only**
- D. Power Boiler #6 shall not exceed the following emission limits: [Air Emissions License A-177-71-A/R issued 9/25/91, Air Emissions License Amendment A-177-71-Q-M issued 12/7/97, 06-096 CMR 140, BPT]

Pollutant	lb/MMBtu	lb/hr	Origin and Authority
PM	0.15	19.1	06-096 CMR 115, BPT
PM <sub>10</sub>	-	15.2 (filterable only) 16.5 (filterable + condensable)	06-096 CMR 115, BPT(State enforceable only)
PM2.5	-	16.5(filterable + condensable)	06-096 CMR 115, BPT (State enforceable only)
$SO_2$	-	266.9	06-096 CMR 115, BPT
NOx	0.40	50.8	06-096 CMR 115, BPT
СО		25.4	06-096 CMR 115, BPT
VOC		1.3	06-096 CMR 115, BPT

- E. If boiler #6 fuel oil usage exceeds 3.3 million gallons on a 12 month rolling total, compliance with the lb/MMBtu particulate matter emission limits shall be determined on the basis of stack testing performed within 60 days of exceeding the fuel threshold in accordance with 40 CFR Part 60 Appendix A, Method 5. [06-096 CMR 140, BPT]
- F. LPT shall demonstrate compliance with Power Boiler #6 NOx lb/MMBtu emission limit if oil usage exceeds 3.3 million gallons on a 12 month rolling total within 60 days of exceeding the fuel threshold, by stack testing in accordance with 40 CFR Part 60 or other method approved or required by the Department. [06-096 CMR 138]

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- (16) Power Boiler #7 shall comply with the each of the following:
  - A. Power Boiler #7 shall fire #6 fuel oil with a sulfur content not to exceed 0.7%. Power Boiler #7 may also fire biofuel, natural gas, on and off-specification waste oil. [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]
  - B. LPT shall do annual boiler instrumentation calibrations and clean burner tips, atomizing diffusers, and oil strainers on an as needed basis to maintain efficient boiler operation as part of Best Practical Treatment. If Power Boiler #6 is operated more than 1,000 hours in a consecutive 12 month period, it shall have an annual tune-up which focuses on optimization and proper maintenance of the combustion equipment. LPT is subject to the tune-up recordkeeping requirements as specified in Section 3(L)2 of 06-096 CMR 138.

    [06-096 CMR 138, BPT & 06-096 CMR 140, BPT] State Enforceable Only
  - C. LPT shall maintain records of annual #6 fuel, biofuel, and on/off specification waste oil use indicating the quantity of fuel consumed (gallons). LPT shall also maintain records of the fuel oil percent (%) sulfur content by weight demonstrated by purchase records from the supplier. [06-096 CMR 140, BPT]

#### For #6 fuel oil:

- Until December 31, 2017, the sulfur content of the #6 fuel oil fired shall not exceed 0.7% by weight. [06-096 CMR 106]
- Beginning January 1, 2018, the #6 fuel oil fired shall not exceed a maximum sulfur content limit of 0.5% by weight. [38 MRSA §603-A(1) and (2)] State Enforceable Only
- D. Power Boiler #7 shall not exceed the following emission limits: [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]

Pollutant	lb/MMBtu	lb/hr	Origin and Authority
	17.7.4.		
PM	0.15	15.0	06-096 CMR 115, BPT
$PM_{10}$	-	12.0 (filterable only)	06-096 CMR 115, BPT
		13.0 (filterable + condensable)	(State enforceable only)
PM2.5	-	13.0 (filterable + condensable)	06-096 CMR 115, BPT
			(State enforceable only)
$SO_2$	-	210.4	06-096 CMR 115, BPT
NOx	0.40	45.1	06-096 CMR 115, BPT
CO		20.0	06-096 CMR 115, BACT
VOC		1.0	06-096 CMR 115, BACT

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- E. If Power Boiler #7 fuel oil usage exceeds 3.3 million gallons on a 12 month rolling total, compliance with the lb/MMBtu particulate matter emission limits shall be determined on the basis of stack testing performed within 60 days of exceeding the fuel threshold in accordance with 40 CFR Part 60 Appendix A, Method 5. [06-096 CMR 140, BPT]
- F. LPT shall demonstrate compliance with Power Boiler #7 NOx lb/MMBtu emission limit if fuel oil usage exceeds 3.3 million gallons on a 12 month rolling total within 60 days of exceeding the fuel threshold, by stack testing in accordance with 40 CFR Part 60 or other method approved or required by the Department. [06-096 CMR 138]
- (17) Power Boilers #6 and #7 vent through a common stack. When operating alone, visible emissions shall not exceed an opacity of 30% based on a six (6) minute block average basis, for more than two (2) six (6) minute block averages in a 3-hour period. When two boilers firing, Visible Emissions Regulation, 06-096 CMR 101,§2(B)(5)(a)(i) contains an applicable opacity standard from a combined stack of 30% opacity on a six-minute block average basis, except for no more than three six-minute block averages in a three-hour block period. A cold start-up exemption for the first four hours of start-up, starting with the first violation, applies if the unit has been without a fire for 4 hours or more.

LPT shall maintain and operate a continuous emission monitor for opacity in accordance with the requirements in 06-096 CMR 117.

[A-177-70-G-A issued 12/5/05, 06-096 CMR 101]

- (18) Power Boiler #8 shall comply with each of the following:
  - A. Licensed fuels for Power Boiler #8 include: biomass fuels (wood chips, wood room waste, sawdust, sawmill waste, wood pallets, wood crates, waste paper, waste treatment plant sludge), coal, fuel oil, natural gas, biofuel, on specification waste oil, liquor soap residue, construction and demolition debris, and tire chips. Power Boiler #8 is also licensed to burn TRS and NCG gases. Fuel oil fired in Power Boiler #8 shall not exceed 0.5% sulfur by weight. Specification waste oil may be burned if the sulfur content is less than 0.5% by weight and the fuel meets specification waste oil standards of the DEP and quantity and type of waste oil burned is recorded. Solid oily waste may be burned provided it is sampled annually and tested for TCLP Metals, PCBs, and TOX. [MEDEP 1991 PSD Permit (A-177-71-A/R)] [06-096 CMR 140, BPT]

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B. Power Boiler #8 shall not exceed the following emission limits: [MEDEP 1991 PSD Permit (A-177-71-A/R), NSPS, 06-096 CMR 140, BPT]

Pollutant	lb/MMBtu	Averaging times	
PM & PM10	0.02, 0.027	PM and PM10 will meet 0.02 lb/MMBtu when biomass fuels heat	
		inputs ≤ 10%total heat input. PM and PM10 will meet 0.027	
		lb/MMBtu when biomass fuels heat inputs are > 10% of total heat	
		input.	
		Description Charles Test Medical	
		Based on Stack Test Method	
SO <sub>2</sub>	a	Based on Stack Test Method	
NOx	0.45, 0.30	The NOx emission limit in lb/MMBtu for Boiler #8 shall not	
		exceed 0.45 lb/MMBtu on all fuels based on a 24 hour block	
		average basis. A 24-hour block average basis shall be defined as	
		midnight to midnight. Periods of start-up, shutdown and	
		malfunction shall not be included in determining 24-hour average	
		lb/MMBtu emissions. Also, LPT shall not exceed the NSPS NOx	
		emission limit of 0.30 lb/MMBtu when firing oil either alone or	
		with only other non-fossil fuels based on a 30-day rolling average.	
CO	0.7	Based on Stack Test Method	
VOC	0.052	Based on Stack Test Method	

SO2 emission limit in lb/MMBtu = (KaHa + KbHb)/(Ha + Hb)

(Based on a 30 day rolling average)

Ka = 1.2 lb/MMBtu

Kb = 0.5 lb/MMBtu

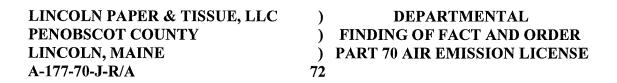
Ha = Heat input from the Combustion of coal in MMBtu

Hb = Heat input from the Combustion of oil in MMBtu

Pollutant	lb/hr	Origin and Authority	Stack Test Method *
PM	10.7	06-096 CMR 115, BACT	EPA Method 5
PM10	10.7 (filterable only)	06-096 CMR 115, BACT	EPA Method 202
	14.7 (filterable + condensable)		
PM2.5	14.7 (filterable + condensable)	06-096 CMR 115, BACT	EPA Method 6c
$SO_2$	267.3	06-096 CMR 115, BPT	EPA Method 7e
NOx	231.3	06-096 CMR 115, BACT	EPA Method 10
CO	302.8	06-096 CMR 115, BPT	EPA Method 18
VOC	22.5	06-096 CMR 115, BACT	Based on Stack Test
		•	Method

<sup>\*</sup> Or other EPA method approved by the Department

C. Compliance with the NOx RACT emission limit of 0.45 lb/MMBtu shall be determined by the existing NOx CEM on a 24-hour block average basis. A 24-hour block average basis shall be defined as midnight to midnight. Except for periods of start-up, shutdown and malfunction shall not be included in



determining 24 hour block average emission rates. The NOx CEM will also demonstrate compliance with the 0.30 lb/MMBtu emission limit when firing oil either alone or with only other non-fossil fuels based on a 30-day rolling average. [06-096 CMR 138]

- D. Compliance with the lb/MMBtu and lb/hour particulate matter emission limits shall be determined by stack testing performed once every five calendar years and in accordance with 40 CFR Part 60 Appendix A, Method 5. [A-177-70-K-A issued 1/13/09, 06-096 CMR 140, BACT]
- E. The sulfur content of the #2 fuel oil fired in Power Boiler #8 shall not exceed 0.5% by weight. The sulfur weight percent shall be demonstrated through purchase records from the supplier. Compliance with SO<sub>2</sub> license limits shall be demonstrated through stack testing within 90 days of a request from the Department. [MEDEP 1991 PSD Permit (A-177-71-A/R), NSPS]
- F. Compliance with CO and VOC license limits shall be demonstrated through stack testing within 90 days of a request from the Department. [MEDEP 1991 PSD Permit (A-177-71-A/R), NSPS]
- G. LPT shall document times of operation, amount, type of fuel burned, and whether or not TRS is burned in Power Boiler #8 on a daily basis. The amount of time TRS incineration occurs shall be recorded and made available in quarterly reports. Power Boiler #8 is designated as a backup TRS/NCG control device. TRS/NCGs shall not be burned in Power Boiler #8 for more than 400 hours in a calendar quarter. If LPT burns coal, compliance with the SO<sub>2</sub> license emission limits shall be demonstrated through use of a CEMS to be installed within 120 days of burning coal. [06-096 CMR 140, BPT and 06-096 CMR 117] [06-096 CMR 124, BPT]
- H. The combined coal and oil heat input shall be  $\leq$  30% of the maximum annual heat input capacity of the boiler (433 MMBtu/hr) Less than or equal to 30% will be determined using the following equation:

```
\leq30% = (gallons oil/L12M) x (BTUs/gal of oil) + (lb coal/L12M) x (BTUs/lb coal) (433 MMBtu/hr) x (total hours/L12M)
```

where L12M = last 12 months

I. Visible emissions shall not exceed an opacity of 20% based on a six (6) minute block average basis except for one (1) six (6) minute block average period of no more than 27% opacity on a one hour period. Compliance with the opacity limit shall be demonstrated by means of a continuous opacity monitor (COM). A cold start-up exemption for the first four hours of continuous firing, starting with the

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first 6 minute average > 20%, shall be provided if the unit has been without a fire for 4 hours or more.

[A-177-70-G-A issued 12/5/05, 06-096 CMR 101, 1991 PSD Permit (A-177-71-A/R)]

J. Periodic monitoring shall consist of monitoring the amount of oil fired in Power Boiler #8, fuel supplier receipts showing sulfur content of the oil, and recordkeeping which includes fuel use records and fuel analysis records. LPT shall monitor and record the operating ESP T.R. set voltage and amperage once per shift.

Parameter		Demonstrated With	
Fuel oil combusted	once every 24 hours	flowmeter	
Operating ESP T.R. Set voltage and amp	once per shift	amp meter	

- K. LPT can burn solid oily waste from LPT's processes in Power Boiler #8. The required testing of the solid oily waste shall be as follows:
  - LPT shall collect a representative solid oily waste sample annually. The sample of solid oily waste shall be analyzed for metals (As, Ba, Cd, Cr, Pb, Hg, Se, Ag), Polychlorinated biphenyls (PCBs), Total Organic Halogens (TOX), (High) Heat Value, Ash Content, Moisture Content, and Sulfur.
  - The testing of a representative grab sample shall be done annually. Oily solid waste containing levels of TCLP metals considered hazardous under DEP regulations shall not be burned. The allowable levels for PCB and total halogens shall be consistent with DEP guidelines for off-specification oil.
  - LPT shall record the tons of solid oily waste combusted and maintain the analytical data from the material tested. This information shall be made available upon DEP's request.

    [06-096 CMR 140, BPT]

# (19) #2 Fuel Oil

- Until December 31, 2015, the #2 fuel oil fired in LPT's boilers or process equipment shall be ASTM D396 compliant (max. sulfur content of 0.5% by weight). [06-096 CMR 115, BPT]
- Beginning January 1, 2016, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.005% by weight (50 ppm). The Tissue dryers are exempt from this requirement. [38 MRSA §603-A(2)(A)(3)] [Enforceable by State only]
- Beginning January 1, 2018, the facility shall fire #2 fuel oil with a maximum sulfur content limit of 0.0015% by weight (15 ppm). The Tissue dryers are

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- exempt from this requirement. [38 MRSA §603-A(2)(A)(3)] [Enforceable by State only]
- Compliance shall be demonstrated by fuel records from the supplier showing the quantity, type, and the percent sulfur of the fuel delivered (if applicable). Records of annual fuel use shall be kept on a monthly and 12-month rolling total basis. [06-096 CMR 115, BPT]
- (20) LPT shall operate the facility in accordance with the restrictions given below, and shall maintain sufficient records to document compliance with each. Unless otherwise specified, compliance shall be demonstrated by means of the appropriate EPA reference test methods, and the compliance averaging time shall be the same as that used in the appropriate EPA reference test method. [06-096 CMR 140, BPT]
  - A. If both Recovery Boiler #2 and the Power Boiler #8 are operating, only one of the other two oil fired power boilers (#6 and #7) shall be operating.
  - B. If the Power Boiler #8 is not operating and Recovery Boiler #2 is operating, then LPT may operate Power Boilers #6 and #7 concurrently. When Recovery Boiler #2 is operating on 100% oil, the sulfur content of the fuel oil being burned in it shall not exceed 0.7% sulfur by weight. At all other times, the fuel oil being fired in Recovery Boiler #2 shall not exceed 2.0% sulfur by weight. Hours of operation for Recovery Boiler #2 operating on 100% oil shall be limited to a total of 350 hours over every consecutive 12-month period. [A-177-70-G-A issued 12/5/05]
  - C. LPT shall have in place a system for measuring and recording the amount and type of such fuel burned.
  - D. For all the operating conditions in this air emissions license, a unit shall be considered "operating" or "in operation" if any fuel is being combusted in it and steam is being produced. For those units not allowed to operate concurrently, one may be in start-up and the other in shutdown for an overlapping period not to exceed 8 hours. If one of the units in question is Recovery Boiler #2, the overlapping period shall not exceed 12-hours. A forty minute period is allowed to swap fuels to meet this condition.
- (21) The Bleach Plant / Chlorine Dioxide Generation system shall comply with each of the following: [06-096 CMR 140, BPT] **State Enforceable Only** 
  - A. Total ClO<sub>2</sub> emissions shall not exceed 3.0 lb/hr.

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- B. LPT installed a scrubber to be used as part of its HVLC compliance strategy. The white liquor scrubber system shall have the white liquor flow measured by a flow meter. [A-177-70-I-A issued 4/5/05, A-177-77-2-M]
- C. Compliance testing of controlled sources shall be done downstream of the scrubber. All stack testing shall comply with the MEDEP stack testing protocol guidelines.
- D. Compliance testing for the Bleach Plant/Chlorine Dioxide Generation system shall be performed once every 5 calendar years to demonstrate compliance with the ClO<sub>2</sub> emission limit. The Department may require additional testing based on visible emissions, operating parameters or other information that indicates the source may be operating out of compliance with any applicable emission standard. [A-177-70-K-A issued 1/13/09]
- E. If at any time, LPT desires to use an alternate scrubbing media other than caustic, white liquor, total liquor, or O<sub>o</sub> filtrate in the Cl<sub>2</sub>/ClO<sub>2</sub> scrubber, LPT shall conduct compliance tests within 60 days to demonstrate that the emission limits per this license can be met.
- F. LPT shall install, calibrate, record and maintain parameter monitors to determine scrubber flow. LPT shall record this data once per shift and keep records for six years. Bleach Plant parameter monitors shall be calibrated and in use and data recorded. The facility shall monitor and record the following for the HVLC/Bleach Plant Scrubber System and the ClO<sub>2</sub> Generation Plant Scrubber System: [A-177-70-I-A issued 4/5/05]

Parameter for each scrubber	Recording	Demonstrated With
	Frequency	
Scrubber flow	once per shift	flow-meter
Fan amperage	once per shift	amp meter
D1 uptube temperature	once per shift	thermocouple

- (22) The Lime Kiln shall comply with each of the following:
  - A. The lime kiln shall not exceed the following air emission limits: [MEDEP 1991 PSD Permit (A-177-71-A/R), 06-096 CMR 140, BPT]

Pollutant	ppmv	lb/hr	Origin and Authority
PM		20.9	06-096 CMR 115, BACT
PM <sub>10</sub>		20.9 (filterable) 21.7 (filterable + condensable)	06-096 CMR 115, BPT (State Enforceable Only)

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PM 2.5		21.7 (filterable + condensable)	06-096 CMR 115, BPT
			(State Enforceable
			Only)BACT
SO <sub>2</sub>	50 ppmv wet basis @ 10% O <sub>2</sub> ,	14.1	06-096 CMR 115, BPT
	3-hr average basis		
$NO_{x}$	236 ppmv dry basis @ 10% O <sub>2</sub> , 1-	40.4	06-096 CMR 115, BACT
, A	hr average basis		
CO	220 ppmv wet basis @ 10% O <sub>2</sub> ,	27.1	06-096 CMR 115, BACT
	3-hr average basis		
VOC	25 ppmv wet basis @ 10% O <sub>2</sub> , 3-	1.8	06-096 CMR 115, BPT
	hr average basis		
TRS	20 ppmv wet basis @ 10% O <sub>2</sub> ,		06-096 CMR 115, BPT
	12-hr block average		

- B. Compliance with the Lime Kiln NOx emission limit of 236 ppmv on a dry basis corrected to 10% O<sub>2</sub>, or equivalent wet basis limit correcting O<sub>2</sub> to 10%, shall be based on stack tests conducted during calendar year 2003 and every other calendar year thereafter in accordance with the appropriate EPA test methods (40 CFR, Part 60, Appendix A). LPT shall submit a written report of the NOx emission demonstration within 30 days after each stack test is conducted. [06-096 CMR 138, NOx RACT]
- C. The lime kiln shall not exceed a TRS limit of 20 ppmv corrected to 10% O<sub>2</sub> on a wet basis, measured as H<sub>2</sub>S. Compliance with the TRS ppmv emission limit shall be determined on a 12-hr block average basis, as described in 40 CFR Part 60, Subpart BB and demonstrated by means of a CEMS on the lime kiln. [06-096 CMR 124, BPT]

The quarterly reports shall contain the total number of twelve (12)-hour block averaging periods in violation in the quarter, which include periods of start-up, shutdown or malfunction, but exclude periods when the Lime Kiln is not operating. The following periods of excess emissions are not a violation of 06-096 CMR 124 or of this license:

- For the Lime Kiln, the first four twelve (12)-hour block averages in a quarter which exceed either license limits or the emission standards of Section 3(K) of 06-096 CMR 124. [06-096 CMR 124, BPT]
- D. LPT shall continuously operate a wet scrubber system to control emissions from the lime kiln. LPT shall monitor and record the following for the Lime Kiln: [06-096 CMR 140, BPT]

Parameter	Recording Frequency	Demonstrated With
Scrubber pressure drop	continuous	differential pressure gauge
Scrubber media flowrate	continuous	flowmeter

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E. The lime kiln is subject to the requirements of 40 CFR Part 63, Subpart MM which limits PM emissions to 0.064 gr/dscf @10% O<sub>2</sub>. LPT shall comply with the recordkeeping and reporting requirements of Subpart MM for the lime kiln by the dates required by that Subpart. [40 CFR Part 63, Subpart MM]

## 40 C.F.R. Part 63, Subpart MM requirements for the Lime Kiln

Emissions Limit – Section 63.862(a)(i)(c)

	$PM^1$	0.064 gr/dscf @ 10% O2 <sup>2</sup>	
ĺ	LIM .	0.064 gr/dscr @ 10% O2	

Monitoring – Sections 63.864(e)(10), (j) and (k)

Pressure drop, scrubbing liquid flow rate	_	Establish operating ranges during initial performance test.
	_	Record once every 15 minutes.
	_	Implement corrective action if a 3-hour average is outside of established parameter range.
	_	Violation only if six or more 3-hour parameter values are outside approved parameter range in a 6 month reporting period.

### Testing – Section 63.865

5 within 180 days of March 14, 2005. Testing completed September 7, 2005	Testing		Conduct initial compliance test using Method 5 within 180 days of March 14, 2005. Testing completed September 7, 2005
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#### Recordkeeping – Section 63.866

Recordkeeping	_	Develop SSM plan.
	_	Maintain records of SSM events.
	_	Maintain records of CaO production rates
	ļ	(ton/day).

<sup>&</sup>lt;sup>1</sup> PM limits may be met by emissions averaging per 40 C.F.R. Section 63.862(a)(ii).

# (23) The Lime Slaker shall comply with each of the following: [06-096 CMR 140, BPT]

A. The Lime Slaker shall not exceed a production rate supporting 650 ADT/day of pulp (raw material), which is approximately equal to 190 tons per day at 100% CaO. [MEDEP 1991 PSD Permit (A-177-71-A/R)]

<sup>&</sup>lt;sup>2</sup> SSM events are exempt.

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- B. PM emissions shall be based on the process weight rate per 06-096 CMR 105 and shall not exceed 0.73 lb/hour. [06-096 CMR 105]
- C. LPT controls PM/PM<sub>10</sub> emissions by operating a wet scrubber system. LPT shall monitor the media flow rate and pressure drop to the wet scrubber system and record once per shift in a permanent log.
- D. LPT shall continuously operate the Wet Scrubber System on the emissions from the Lime Slaker when the Lime Slaker is in operation. LPT shall keep records of scrubber downtime. [06-096 CMR 140, BPT]
- E. LPT may exempt 16 hours per quarter for short term bypass of the wet scrubber system for maintenance activities and cleaning of the scrubber. The hours of maintenance activities and cleaning this equipment shall be documented in a log along with any changes in method of operation.
- F. LPT shall monitor and record the following for the Lime Slaker wet scrubber system:

Parameter ***	Recording Frequency	Demonstrated With
Venturi pressure drop	once per shift	differential pressure gauge
Scrubber media flowrate	once per shift	flowmeter

[06-096 CMR 140, BPT]

- (24) The Causticizers shall comply with each of the following:
  - A. The PM/PM<sub>10</sub> emission limits shall be based on the process weight rate per 06-096 CMR 105 and the PM/PM<sub>10</sub> emissions shall not exceed 1.9 lb/hr, compliance with the licensed limits shall be demonstrated through stack testing when requested by the Department. [06-096 CMR 105] **State Enforceable Only**
  - B. LPT shall control particulate emission with the use of a demister pad and shall operate it in accordance with the manufacturer's specification. LPT shall inspect and maintain as necessary at least once per year. [06-096 CMR 140, BPT]
- (25) The Lime Silo shall comply with each of the following:
  - A. Opacity from the Lime Silo shall not exceed 10% for more than one six (6) minute block average in any one (1) hour period. [06-096 CMR 101]
  - B. LPT shall clean up spills within 24 hours of occurrence of each spill. [06-096 CMR 140, BPT]
  - C. LPT shall inspect all unloading systems, when in use, for leaks and malfunctions once per shift. If leaks occur, LPT shall discontinue unloading until leaks and/or malfunctions are eliminated. The inspections shall be recorded in a log. Loading of the Lime Silo will be supervised and an alarm for over-pressurization of the lime silo is required. [06-096 CMR 140 BPT]

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(26) The Smelt Tank shall comply with each of the following: [MEDEP 1991 PSD Permit (A-177-71-A/R), 40 CFR Part 63 Subpart MM, 06-096 CMR 140, BPT]

A. Emissions from the Smelt Tank shall not exceed the following:

Pollutant		lb/hr
PM	0.20 lb/ton BLS* (dry weight)	7.92
$PM_{10}$	0.20 lb/ton BLS (dry weight)	7.92
$\mathrm{SO}_2$	75 ppmv (wet basis) @ 8% O <sub>2</sub>	4.6
TRS	0.033 lb/ton BLS (dry weight)	

<sup>\*</sup> Black Liquor Solids

- B. LPT shall control particulate emissions from the Smelt Tank with the use of demister pads. Emissions from the smelt tank shall pass through the demister pad, except for demister pad cleanings. LPT is allowed a short term downtime of the Smelt Tank's particulate control equipment for cleanings of the demister pad for a time not to exceed 16 hours per quarter. The hours of downtime for cleaning this equipment shall be documented in a log along with the change in method of operation. [06-096 CMR 140, BPT]
- C. Compliance with the limits for PM, PM<sub>10</sub>, TRS and SO<sub>2</sub> shall be based on stack tests conducted in accordance with the appropriate EPA test methods (40 CFR Part 60, Appendix A). LPT shall stack test the Smelt Tank to demonstrate compliance with the licensed TRS emission limit every two years on a calendar year basis. [06-096 CMR 140, BPT]
- (27) Tissue Machine #7 shall comply with each of the following: [06-096 CMR 140, BPT & A-177-70-F-A issued 6/9/05]
  - A. Tissue Machine #7 Dryer shall fire natural gas, propane, biofuel, or #2 fuel oil with a maximum sulfur content of 0.5% by weight. Periodic monitoring shall consist of record keeping which demonstrates fuel use and receipts showing the type of fuel fired.
  - B. Emissions from fuel burning from #7 Tissue Machine Dryer shall not exceed:

Pollutant	Lb/hr
PM	0.22
PM10	0.22
SO2	7.7
NOx	2.2
CO	0.54
VOC	2.1

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- C. Calculated emissions from the tissue machine process shall be limited to 1.2 tons PM/year and 9.3 tons VOC/year. Calculated VOC emissions assume 100% of the volatile components of each chemical lost through evaporation from the dryer and that TM #7 operates with 100% uptime annually.
- (28) The #8 Tissue Machine shall comply with each of the following: [A-177-70-F-A issued 6/9/05, 06-096 CMR 140, BPT]
  - A. Each of the two burners for the #8 TM has a maximum heat input capacity of 12.5 MMBtu/hr. The burners fire biofuel and/or #2 fuel oil with a maximum fuel sulfur content of 0.35% by weight. The #8 TM is also licensed to fire natural gas and propane. Periodic Monitoring shall consist of record keeping which demonstrates fuel use and receipts showing the type of fuel fired. If fuel oil is fired, records shall be maintained that document sulfur content..
  - B. The following license limits shall apply to emissions from the #8 Tissue Machine, including emissions from the oil fired dryers along with particulate and VOC emissions from the process.

Pollutant	Lb/hr	Tons/year
PM	0.6	2.7
PM <sub>10</sub>	0.6	2.7
$SO_2$	8.8	39.0
$NO_X$	6.7	29.4
CO	0.9	3.9
VOC	2.2	9.5

- C. Visible emissions from the #8 Tissue Machine will not exceed 15% opacity on a 6 minute block average, except for no more than two six minute averages in a 3-hour period.
- D. Calculated emissions from the tissue machine process shall be limited to 2.7 tons PM/year and 9.5 tons VOC/year. Calculated VOC emissions assume 100% of the volatile components of each chemical lost through evaporation from the dryer and that TM #8 operates with 100% uptime annually.
- (29) The WTP Emergency Power Generator at the wastewater treatment plant shall comply with each of the following: [06-096 CMR 140, BPT]
  - A. LPT shall not operate the WTP Emergency Power Generator more than 500 hours per year (equates to 43,000 gallons per year of #2 fuel oil).
  - B. LPT shall keep a log documenting the date and time of generator start-up and shut-down.

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- C. Documentation on the length of each run of the wastewater treatment plant generator shall be kept by LPT through the use of an hour meter.
- D. The emergency generator shall fire only #2 fuel oil with a sulfur content not to exceed 0.0015% by weight.
- E. Emissions from the generator shall not exceed the following:

Pollutant	lb/hr
PM	1.4
PM10	1.4
SO2	6.1
NOx	45.0
CO	11.0
VOC	1.5

- F. Visible emissions from the generator shall not exceed 30% opacity on a 6 minute block average, except for no more than 2 six minute block averages in a 3-hour period. [06-096 CMR 101]
- G. The WTP Emergency Power Generator shall meet the applicable requirements of 40 CFR Part 63, Subpart ZZZZ, including the following:

The federal regulation 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines is applicable to the emergency generators listed above. The units are considered existing, emergency stationary reciprocating internal combustion engines at an area HAP source and are not subject to New Source Performance Standards regulations. EPA's August 9, 2010 memo (Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE) specifically does not exempt these units from the federal requirements.

### c. Emergency Definition:

<u>Emergency stationary RICE</u> means any stationary reciprocating internal combustion engine that meets all of the following criteria:

(4) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the

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facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

- (5) Paragraph (1) above notwithstanding, the emergency stationary RICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:
  - (iv) Maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
  - (v) Emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
    - (vi) Periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
- (6) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.
  - The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, except provided in the following paragraphs:
  - (iii)Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the

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engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution center.

- (iv) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
  - (a) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.
  - (b) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
  - (c) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
  - (d) The power is provided only to the facility itself or to support the local transmission and distribution system.
  - (e) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

WTP Emergency Power Generator shall be limited to the usage outlined in §63.6640(f) and therefore may be classified as an existing emergency stationary RICE as defined in 40 CFR Part 63, Subpart ZZZZ. Failure to comply with all of the requirements listed in §63.6640(f) may cause these engines to not be considered emergency engines and therefore subject to all the requirements for non-emergency engines.

# d. 40 CFR Part 63, Subpart ZZZZ Requirements:

	Compliance Dates	Operating Limitations* (40 CFR §63.6603(a) and Table 2(d))
Compression ignition	No later than	- Change oil and filter every 500 hours
(diesel, fuel oil) units:	May 3, 2013	of operation or annually, whichever comes first;
WTP Emergency		- Inspect the air cleaner every 1000
Power Generator		hours of operation or annually,
		whichever comes first, and replace
		as necessary; and

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- Inspect all hoses and belts every 500
hours of operation or annually,
whichever comes first, and replace
as necessary.

<sup>\*</sup> Note: Due to the 500 hour operation limit on each generator, the inspections and oil/filter changes shall be performed annually to meet the requirements of 40 CFR Part 63, Subpart ZZZZ.

The generator shall be operated and maintained according to the manufacturer's emission-related written instructions or LPT shall develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e)]

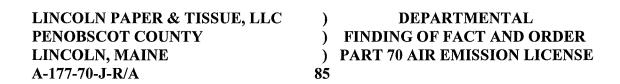
LPT has the option of utilizing an oil analysis program which complies with the requirements of §63.6625(i) in order to extend the specified oil change requirement. If this option is used, LPT must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR§63.6625(i)]

A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §63.6625(f)]

During periods of startup the facility must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6625(h) & 40 CFR Part 63, Subpart ZZZZ Table 2d]

The generator shall be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage or frequency deviation from standards. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations (this does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity unless the conditions in §63.6640(f)(4)(ii) are met). [40 CFR §63.6640(f)]

LPT shall keep records that include maintenance conducted on the generator and the hours of operation of the engine recorded through the non-resettable hour meter. Documentation shall include the hours spent for



emergency operation, including what classified the operation as emergency and how many hours spent for non-emergency. If the generators are operated during a period of demand response or deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), LPT must keep records of the notification of the emergency situation, and the date, start time, and end time of generator operation for these purposes. [40 CFR §63.6655(e) and (f)]

If LPT operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), beginning January 1, 2015, the diesel fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015%). Any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted. [40 CFR §63.6604(b)]

If LPT operates or is contractually obligated to be available for more than 15 hours per calendar year in a demand response program, during a period of deviation from standard voltage or frequency, or supplying power during a non-emergency situation as part of a financial arrangement with another entity as specified in §63.6640(f)(4)(ii), the facility shall submit an annual report containing the information in §63.6650(h)(1)(i) through (ix). The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year. The annual report must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form is not available in CEDRI at the time that the report is due, the written report must be submitted to the following address:

> Director, Office of Ecosystem Protection U.S. Environmental Protection Agency 5 Post Office Square, Suite 100 Boston, MA 02109-3912

[40 CFR §63.6650(h)]

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(30) LPT shall meet the following "Equivalency by Permit" terms and conditions developed as a condensate collection alternative to 40 CFR Part 63 Subpart S:

## Subpart S 63.440 Permit Terms and Conditions

- (1) LPT shall meet all applicable requirements of 40 CFR Part 63 Subpart S. On September 11, 2012, EPA amended Subpart S to include additional and revised requirements including repeat performance testing every 5 years in (Section 63.457 (a)(1) and (2), affirmative defense provisions (63.456), and reporting requirements and electronic reporting requirements (63.445).
- (2) LPT shall meet the requirements of 40 CFR Part 63 Subpart A-General Provision of this part as indicated in Table 1 of Part 63 Subpart S.

Subpart S 63.443 Permit Terms and Conditions

- (3) LPT shall control HAP emissions from their Low Volume High Concentration (LVHC) system by introducing the gas stream into the flame zone of the Lime Kiln as a primary combustion source or Power Boiler #8 as a back-up combustion source. LPT shall keep a contemporaneous log as to which combustion unit is being used at a given time. The closed vent systems shall meet the requirements as specified in 40 CFR 63.450. Periods of excess emissions reported under 40 CFR Subpart S §63.455 (Condition 18) shall not be a violation of 40 CFR Subpart S §63.443(d) provided that the time of excess emissions (including periods of startup, shutdown, or malfunction) divided by the total process operating time in a semiannual reporting period does not exceed one percent for control devices used to reduce the total HAP emissions from the LVHC system.
- (4) LPT shall control HAP emissions from their High Volume Low Concentration (HVLC) system, including their knotter, decker, pulp washing and oxygen delignification systems, as applicable as specified in 64.443 (a)(1)(ii). The closed vent systems shall meet the requirements as specified in 40 CFR Subpart S §63.450. Periods of excess emissions reported under 40 CFR Subpart S §63.455 shall not be a violation of 40 CFR Subpart S §63.443(d) provided that the time of excess emissions (including periods of startup, shutdown, or malfunction) divided by the total process operating time in a semiannual reporting period does not exceed four percent for control devices used to reduce the total HAP emissions from the HVLC system. Each kraft pulping system shall be in compliance with the pulping system provisions of 40 CFR Subpart S §63.443 for the equipment listed in 40 CFR 63.443(a)(1)(ii) through (a)(1)(v).

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# Subpart S 63. 445 Permit Terms and Conditions

- (5) The equipment at each bleaching stage, of bleaching systems listed in paragraph (a) of 40 CFR Subpart S §63.445, where chlorinated compounds are introduced shall be enclosed and vented to the atmosphere at a concentration of less than 10 ppm.
- (6) LPT's bleach plant shall meet the 10 ppm limit through process design as allowed by 40 CFR Section 43.445 (b). According to Section 63.453 (m), LPT shall monitor and record D1 uptube temperature as approved by EPA in letter dated August 14, 2002 to demonstrate continuous compliance with applicable control requirements. If the parameter exceeds the minimum operating parameter value, scrubbing is not required. When scrubbing is required, LPT will measure the scrubber's process parameters in accordance with 40 CFR Section 63.453(c)(1) and (c)(3). In lieu of the monitoring required under Section 63.453(c)(2), LPT will monitor the scrubber fan amperage according to the EPA approved alternative monitoring as stated in the Sept 3, 2001 letter.
- (7) LPT shall not use any hypochlorite or chlorine for bleaching in the bleaching system.

Subpart S 63.446 Alternative Permit Terms and Conditions

[This Condition is an alternative to the above MACT standard]

(8) LPT shall meet the requirements of 40 CFR Part 63 Subpart S §63.446 (d) through an alternate equivalency (hard pipe alternative) demonstration. LPT shall collect and convey process condensates from the digester system, evaporator system, LVHC system, acid and alkaline pulp mill sewers, and after 4/17/2006 the condensates from the HVLC system. LPT shall convey at least 11.1 lbs of total HAP/ton of oven dried pulp based on a 15 day rolling average from their regulated sources through a collection system that meets the requirements in Sections 63.960, 63.961, and 63.962 of Part 63 Subpart RR up to LPT's wetwell and primary clarifier. According to Section 63.453(i), LPT has proposed the method of on-going compliance with the required 11.1 lb/ODT after the initial performance test.

[This Condition is an alternative to the above MACT standard]

- (9) The wetwell is enclosed in a cinder block building with a roof and makeshift door than remains partly sealed. LPT will maintain the existing structure around the wetwell and will keep the door closed except for inspections, raking of screens, and maintenance, thus minimizing emissions. The surface of the clarifier is to remain quiescent. If LPT makes any physical change or change in the method of operation of the wetwell or the primary clarifier, LPT must demonstrate that it still meets compliance with the equivalency calculation. LPT will operate and maintain condensate conveyance in a manner that will minimize HAP losses through volatilization.
- (10) LPT shall reduce or destroy 92% of the HAPs collected (while taking into account basin losses) by introducing the primary clarifier discharge under the surface of LPT's aeration basin. Compliance with this element will be demonstrated by sampling HAPs for multi-zone basins as described in 40 CFR Part 63, Appendix C, E. Multiple Zone Concentration Measurements (Procedure 5).

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#### **Subpart S 63.450 Permit Terms and Conditions**

- (11) LPT shall meet the standards specified in 40 CFR Part 63 Subpart S §63.450 for each applicable closed-vent system or enclosure for capturing and transporting vent streams that contain HAP. LPT shall for each component (including rupture disks, valves, flanges, flame arresters, mist eliminators, gauges, seal pots, and vacuum breakers) of the LVHC closed-vent system that is operated at negative pressure and located prior to the lime kiln or #8 power boiler shall be operated with no detectable leaks (annually checked and monthly visual leak inspections) as indicated by an instrument reading of less than 500 ppm by volume above background, as measured in the procedures specified in 63.457 (d).
- (12) LPT shall for each vent line in the LVHC system install, maintain, and operate according to manufacturer's specifications a valve position indicator. The vent lines are on the M&D Digesters, Kamyr digester, evaporators, lime kiln, Power Boiler #8. LPT can utilize rupture disks. A break in the rupture disk provides LPT with an immediate failure indication. The time (duration) of rupture disk occurrence shall be maintained and recorded. For vent and bypass line valves that are not computer controlled or monitored, LPT shall maintain the bypass line valve in the closed position with a car seal or a seal place on the valve or closure mechanism in such a way that the valve or closure mechanism cannot be opened without breaking the seal.

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# **Subpart S 63.453 Permit Terms and Conditions**

- (13) LPT shall perform daily monitoring procedures specified in paragraph (j)(1) and shall conduct a quarterly performance test each quarter using the procedures in Section 63.453(j)(3). LPT shall operate the biological treatment system in a manner consistent with appropriate operating parameter values or procedures required to be monitored according to section 63.453(o) and 63.453(p).
- (14) To establish or reestablish, the value for each operating parameter required to be monitored under paragraph (n) of 40 CFR Subpart S §63.453 or to establish appropriate parameters for paragraph (n) of Section 63.453, LPT shall use the following procedure:
  - O Aeration Horsepower
    From June 1st to September 30th, LPT shall not operate less than 700 hp aeration blowers' horsepower for more than 20 hours and from October 1st to May 31st, LPT shall not operate less than 550 hp aeration blowers' horsepower for more than 20 hours.
  - BOD Limit
     A violation of the daily BOD limit established in LPT's MEPDES Permit.
- (15) LPT shall meet the requirements as specified in 40 CFR Subpart S §63.453(i). LPT shall also meet the requirements of 40 CFR Part 63 Subpart S §63.453(p) when a monitoring parameter excursion occurs when complying with 63.453 (j) of this section.
- (16) LPT shall meet the applicable monitoring requirements as specified in 40 CFR Part 63 Subpart S §63.453 (j), for owners or operators using biological treatment system for compliance. The following monitoring procedures shall be maintained:

On a daily basis, monitor the following parameters for the biological treatment unit:

- Composite daily sample of outlet soluble BOD5 concentration to monitor for maximum daily and maximum monthly average.
- Mixed liquor volatile suspended solids
- Horsepower of aerator unit(s).
- Inlet liquid flow and temperature
- Obtain daily inlet and outlet liquid grab samples from the biological treatment unit to have HAP data available to perform quarterly percent reduction test specified in §63.457.

[This Condition is an alternative to the above MACT standard]

(17) LPT shall comply with Section 63.453(1). Visual inspections of the pulping process condensate closed collection system, which also contains the acid and alkaline wastewater, will be conducted and documented once during each calendar month, with at least 21 days elapsed time between inspections. Any leak detected will be addressed in accordance with 40 CFR Part 63 Subpart S §63.964(b). Each enclosure and closed-vent system used to comply with 40 CFR Part 63 Subpart S §63.450(a) shall comply with the requirements specified in paragraphs (k)(1) through (k)(6) of this section.

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#### **Subpart S 63.455 Permit Terms and Conditions**

(18) LPT shall perform recordkeeping to meet the requirements of 40 CFR Subpart S §63.454 (a), (b), (e), and (f)

# **Subpart S 63.456 Permit Terms and Conditions**

(19) LPT shall meet the applicable reporting requirements as specified in 40 CFR Subpart S §63.455, specifically sections 63.455 (d), (e) and (f).

## **Subpart S 63.457 Permit Terms and Conditions**

- (20) LPT shall use appropriate test methods and procedures in 40 CFR Subpart S §63.457 to document compliance with Part 63 Subpart S and alternative requirements approved through Subpart E, Section 63.94. LPT shall follow the procedures specified in section E of appendix C of this part to characterize the open biological treatment system during the initial and any subsequent performance tests.
- (21) LPT shall meet the requirement specified in Section 63.457 (L) (1) and (3) to calculate biological treatment percent reduction for non-thoroughly mixed biological treatment systems. LPT performed the required initial performance test to demonstrate compliance with the standards for kraft pulping process condensates under Section 63.446. LPT shall use the procedures identified in Sections 63.457 (c), (d), (g), (j), (L)(1), (m) and (n) to demonstrate initial compliance with the standards for kraft pulping process condensates under Section 63.446.
- (22) LPT conducted an initial performance test using the procedures identified in Sections 63.457 (b), (d), (e), (h), and (i) on the bleach plant within 180 days after April 16, 2001.
- (23) LPT has conducted a test to demonstrate equivalency (approved by EPA Region I and the Department) for its alternative compliance approach. LPT shall use the following equation to demonstrate compliance.

#### Equivalency calculation:

11.1 lb/ODT (X)  $\leq$  [(6.37 lb/ODT(1 - X)) x (1 - Y)], where

X = percent losses across the wetwell and clarifier determined using the Water9 modeling Y= percent losses across from the aeration basin determined using Appendix C procedures.

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# **Subpart S 63.457 Permit Terms and Conditions Continued...**

- (24) At any time in the future, EPA or the Department may request LPT to conduct a performance demonstration using the equivalency calculation. EPA or the Department must provide LPT with 60 days' notice to conduct a demonstration. If at any time, the testing results show that emission reductions are less than required by 40 CFR 63 Subpart S, then the license shall be reopened and terms and conditions written to reflect the requirements of 40 CFR Subpart S.
- (25) LPT plans to use the Water9 model where applicable to demonstrate compliance with respect to any modeled emission rate requirement. LPT may use another model with prior approval from EPA and MEDEP.
- (31) Low Volume High Concentration (LVHC) System Equipment Requirements:
  - A. Each digester shall be vented to either the Lime Kiln or Power Boiler #8 when the digester is in normal use. [06-096 CMR 124]
  - B. The evaporators shall be vented to either the Lime Kiln or Power Boiler #8 when the evaporators are in normal use. [06-096 CMR 124]
  - C. LPT shall not allow venting of TRS from the LVHC system or associated equipment which:
    - 1. exceeds 40 minutes in duration; or
    - 2. contributes to an aggregate TRS venting of more than 1.0% of quarterly operation time. [06-096 CMR 124, TRS Control]

Venting within these parameters are not violations of this license.

- D. LPT shall submit quarterly reports which contain all events of venting of TRS from the LVHC system of greater than fifteen (15) minutes when the aggregate TRS venting exceeds 0.5% of quarterly operating time. LPT shall also quarterly report all venting of TRS from the LVHC system or associated equipment for greater than one (1) minute which contributes to an aggregate TRS venting of more than one (1)% of quarterly operating time. [06-096 CMR 124, TRS Control]
- E. Any TRS/NCG venting greater than 15 minutes shall be reported to the Department within 2 business days. LPT shall submit quarterly reports concerning TRS as required per 06-096 CMR 124 of the Maine DEP Air Bureau Regulations and meet the applicable reporting requirements outlined in Section 5(B) & (C) of 06-096 CMR 124. [06-096 CMR 140, BPT]

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(32) High Volume Low Concentration (HVLC) System Equipment Requirements:

LPT is subject to National Emission Standards for Hazardous Air Pollutants (NESHAP) for the Pulp and Paper Industry contained in 40 CFR Part 63 Subpart S. Under Subpart S, LPT is required to collect and control HAP emissions from the HVLC system, including the knotter, decker, pulp washing and oxygen delignification systems, where applicable, as specified in section 64.443 (a)(1)(ii).

LPT shall maintain a scrubber system as part of its HVLC compliance strategy. LPT shall meet the Clean Condensate Alternative as allowed for in 63.443 (a), 63.443 (d) and 63.447 by collecting and controlling additional non-regulated sources of MeOH emissions in the HVLC collection system from the screens, deknotter, and Oo blow tank. [40 CFR Part 63, Subpart S & A-177-77-2-M issued 4/5/07]

Brown Stock Washer System, Decker, and miscellaneous TRS sources

- 1. Emissions from the Brown Stock Washer System shall be collected and controlled when the washer system is in use to meet the requirements of 06-096 CMR 124 of the Bureau of Air Quality's regulations. [06-096 CMR 124, TRS Control]
- 2. If shower water containing more than 400 ppm by weight of HAPS is used on the Decker, LPT shall collect the NCGs and vent them to the HVLC system. [40 CFR Part 63, Subpart S]
- 3. If shower water is used on the Decker which causes emissions of TRS greater than 0.75 lb/hr under normal operations, LPT shall collect the NCGs and vent them to the HVLC system. [06-096 CMR 124, TRS Control]
- 4. The HVLC system shall maintain a 96% collection and control uptime based on quarterly brownstock washer system operating time. [06-096 CMR 124, TRS Control]
- (33) LPT shall limit fugitive PM emissions as outlined in the fugitive emissions plan submitted to the Department on April 12, 2002 and by implementing the following: [06-096 CMR 140, BPT]
  - a. Woodwaste receiving the material delivered to the receiver will be woodwaste averaging between 40 to 60 percent moisture, which will not significantly contribute to fugitive emissions. Woodwaste will be received in a partially enclosed hopper to provide further fugitive particulate control. Moisture content will be used as fugitive emission control for all fuels stored on the fuel pad prior to processing equipment.

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- b. Wood screener/hogger the screener/hogger building will be totally enclosed to prevent fugitive particulate emissions.
- c. Process fuel storage building woodwaste that has been processed will be stored in a totally enclosed storage building.
- d. Coal receiving, crushing, and storage coal handling facilities are to include a small building for coal receiving and storage and a hopper feeding system. A belt feeder will convey the coal to a crusher. These facilities will be will be constructed prior to burning coal and enclosed to prevent any potential fugitive emissions.
- e. Sawdust, coal, bark, and biomass conveyors all conveyors will be enclosed with half-circle covers, except for the direct conveyor to the boiler that will be totally enclosed.
- f. Power Boiler #8 ash handling system Fly-ash will be conveyed to an enclosed silo for storage prior to conditioning. Bottom ash will be collected and temporarily stored in a water-filled trough, then conveyed to a truck on site. All ash collection points in the boiler area are completely enclosed, including bottom ash handling. Fly ash from the storage silo will conditioned with water prior to transfer to trucks. The trucks will contain the conditioned ash for transportation to a licensed ash storage facility.
- g. Visible emissions from any fugitive emission source shall not exceed an opacity of 20 percent except for no more than five (5) minutes in any 1-hour period. Compliance shall be determined by an aggregate of the individual fifteen (15)-second opacity observations which exceed 20 percent in any one (1) hour.

### (34) Parts Washers

Parts washers at LPT are subject to Solvent Cleaners, 06-096 CMR 130 (as amended).

- A. LPT shall keep records of the amount of solvent added to each parts washer. [06-096 CMR 130, BPT]
- B. The following are exempt from the requirements of 06-096 CMR 130 [06-096 CMR 130]:
  - 1. Solvent cleaners using less than two liters (68 oz) of cleaning solvent with a vapor pressure of 1.00 mmHg, or less, at 20° C (68° F);
  - 2. Wipe cleaning; and,
  - 3. Cold cleaning machines using solvents containing less than or equal to 5% VOC by weight.
- C. The following standards apply to cold cleaning machines that are applicable sources under 06-096 CMR 130.
  - 1. LPT shall attach a permanent conspicuous label to each unit summarizing the following operational standards [06-096 CMR 130]:
    - (i) Waste solvent shall be collected and stored in closed containers.

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- (ii) Cleaned parts shall be drained of solvent directly back to the cold cleaning machine by tipping or rotating the part for at least 15 seconds or until dripping ceases, whichever is longer.
- (iii) Flushing of parts shall be performed with a solid solvent spray that is a solid fluid stream (not a fine, atomized or shower type spray) at a pressure that does not exceed 10 psig. Flushing shall be performed only within the freeboard area of the cold cleaning machine.
- (iv) The cold cleaning machine shall not be exposed to drafts greater than 40 meters per minute when the cover is open.
- (v) Sponges, fabric, wood, leather, paper products and other absorbent materials shall not be cleaned in the degreaser.
- (vi) When a pump-agitated solvent bath is used, the agitator shall be operated to produce no observable splashing of the solvent against the tank walls or the parts being cleaned. Air agitated solvent baths may not be used.
- (vii) Spills during solvent transfer shall be cleaned immediately. Sorbent material shall be immediately stored in covered containers.
- (viii) Work area fans shall not blow across the opening of the degreaser unit.
- (ix) The solvent level shall not exceed the fill line.
- 2. The remote reservoir cold cleaning machine shall be equipped with a perforated drain with a diameter of not more than six inches. [06-096 CMR 130]

# (35) Recordkeeping Requirements

# CEMS, COMS, and Parameter Monitors

The CEMS, COMS, and parameter monitors required by this license shall be the primary means of demonstrating compliance with emission standards set by this Order, statute, state or federal regulation, as applicable. The following CEMs and COMs are required per this license.

- TRS CEM for Recovery Boiler #2
- NOx CEM for Recovery Boiler #2
- COM for Recovery Boiler #2
- NOx CEM for Power Boiler #8
- SO<sub>2</sub> CEM for Power Boiler #8 (only required if LPT burns coal)
- COM for Power Boiler #8
- COM for Power Boilers #6 and #7
- TRS CEM for Lime Kiln

The licensee shall comply with the following: [06-096 CMR 140, BPT]

### A. Performance Specifications

All CEMS and COMS shall meet the sampling and performance criteria specified in 40 CFR Part 51 Appendix P, and shall be operated in accordance

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with 40 CFR Part 60 Appendix F and 06-096 CMR 117 of the Department's regulations.

- 1. If the continuous emission monitoring system for the gaseous emissions is recording accurate and reliable data less than 90% of the source-operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the CEMS was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.
- 2. If the continuous opacity monitoring system is recording accurate and reliable data less than 95% of the source-operating time within any quarter of the calendar year, the Department may initiate enforcement action and may include in that enforcement action any period of time that the continuous emission monitoring system was not recording accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction so the Department that the failure of the system to record accurate and reliable data was due to the performance of established quality assurance and quality control procedures or unavoidable malfunctions.
- 3. Parameter monitors must keep accurate and reliable data. If a parameter monitor allows the recording of accurate and reliable data less than 98% of the source operating time within any quarter of the calendar year (or less than 90% of the source operating time for bleach plant parameter monitors), the Department may initiate enforcement action and may include in that enforcement action any period of time that the parameter monitor was not providing accurate and reliable data during that quarter unless the licensee can demonstrate to the satisfaction of the Department that the failure of the system to provide accurate and reliable data was due to the performance of the established quality assurance and quality control procedures or unavoidable malfunctions.
- 4. Conduct Relative Accuracy Testing (RATA) and/or Performance Audits in accordance with 06-096 CMR 117 of the Department's regulations.
- 5. Develop and maintain an updated quality assurance plan for all CEMS and COMS in accordance with 40 CFR Part 60 Appendix F and 06-096 CMR 117 of the Department's regulations. [06-096 CMR 117]
- 6. NOx and opacity monitors for Power Boiler #8 are subject to NSPS requirements. Relevant sections of Subpart A, Db, Appendix B and F of NSPS are applicable for these monitors.

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# B. Recordkeeping

For all of the continuous emission monitoring (CEMS), continuous opacity monitor (COMS), equipment parameter monitoring and recording, required by this license, the licensee shall maintain records of the most current six year period and the records shall include:

- 1. Documentation which shows monitor operational status during all source operating time, including specifics for calibration and audits; and [06-096 CMR 117]
- 2. A complete data set of all monitored parameters as specified in this license. All parameter records shall be made available to the Bureau of Air Quality upon request.

  [06-096 CMR 117]
- 3. For all CEMS and COMS, the records shall include:
  - a. Documentation that all CEMS and COMS are continuously accurate, reliable and operated in accordance with 06-096 CMR 117, 40 CFR Part 51, Appendix P, and 40 CFR Part 60, Appendices B and F; [06-096 CMR 117]
  - b. Records of all measurements, performance evaluations, calibration checks, and maintenance or adjustments for each CEMS and COMS as required by 40 CFR Part 51 Appendix P; [06-096 CMR 117]

# (36) Reporting Requirements

# A. Quarterly Reporting

The licensee shall submit a Quarterly Report to the Bureau of Air Quality within 30 days after the end of each calendar quarter, detailing the following, for the control equipment, parameter monitors, Continuous Emission Monitoring Systems (CEMS) or Continuous Opacity Monitoring Systems (COMS) required by this license. [06-096 CMR 117]

- A. All control equipment downtimes and malfunctions;
- B. All CEMS or COMS downtimes and malfunctions;
- C. All parameter monitor downtimes and malfunctions;
- D. All excess events of emission and operational limitations set by this Order, Statute, state or federal regulations, as appropriate. The following information shall be reported for each excess event;
  - 1. Standard exceeded;
  - 2. Date, time, and duration of excess event;
  - 3. Amount of air contaminant emitted in excess of the applicable emission standard expressed in the units of the standard;
  - 4. A description of what caused the excess event;
  - 5. The strategy employed to minimize the excess event; and
  - 6. The strategy employed to prevent reoccurrence.

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E. A report certifying there were no excess emissions, if that is the case.

# **B. Semiannual Reporting** [06-096 CMR 140]

- A. The licensee shall submit semiannual reports every six months to the Bureau of Air Quality. The semiannual reports are due on **January 31**<sup>st</sup> and **July 31**<sup>st</sup> of each year. The facility's designated responsible official must sign this report.
- B. The semiannual report shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date.
- C. Each semiannual report shall include a summary of the periodic and CAM monitoring required by this license.
- D. Each semiannual report shall include the annual capacity factor of Power Boiler #8 when burning coal.
- E. All instances of deviations from license requirements and the corrective action taken must be clearly identified and provided to the Department in summary form for each six-month interval.

# C. Annual Compliance Certification

LPT shall submit an annual compliance certification to the Department in accordance with Standard Condition (13) of this license. The annual compliance certification is due January 31<sup>st</sup> of each year. The facility's designated responsible official must sign this report.

The annual compliance certification shall be considered on-time if the postmark of the submittal is before the due date or if the report is received by the DEP within seven calendar days of the due date. Certification of compliance is to be based on the stack testing or monitoring data required by this license. Where the license does not require such data, or the license requires such data upon request of the Department and the Department has not requested the testing or monitoring, compliance may be certified based upon other reasonably available information such as the design of the equipment or applicable emission factors. [06-096 CMR 140]

#### D. Annual Emission Statement

In accordance with *Emission Statements*, 06-096 CMR 137 (as amended), the licensee shall annually report to the Department the information necessary to accurately update the State's emission inventory by means of:

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- A. A computer program and accompanying instructions supplied by the Department; or
- B. A written emission statement containing the information required in 06-096 CMR 137.

The emission statement must be submitted by the date as specified in 06-096 CMR 137.

[06-096 CMR 137]

# (37) General Applicable State Regulations

LPT is subject to the State regulations listed below.

Origin and Authority	Requirement Summary	<b>Enforceability</b>
06-096 CMR 102	Open Burning	-
06-096 CMR 109	Emergency Episode Regulation	-
06-096 CMR 110	Ambient Air Quality Standard	-
06-096 CMR 116	Prohibited Dispersion Techniques	-
38 M.R.S.A.	Mercury Emission Limit	Enforceable by State-only
§585-B, §§5		

### (38) Units Containing Ozone Depleting Substances

When repairing or disposing of units containing ozone depleting substances, the licensee shall comply with the standards for recycling and emission reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioning units in Subpart B. An example of such units include refrigerators and any size air conditioner that contain CFCs.

[40 CFR, Part 82, Subpart F]

#### (39) Asbestos Abatement

When undertaking Asbestos abatement activities, LPT shall comply with the Standard for Asbestos Demolition and Renovation 40 CFR Part 61, Subpart M.

## (40) Expiration of a Part 70 license

- A. LPT shall submit a complete Part 70 renewal application at least 6 months prior, but no more than 18-months prior, to the expiration of this air license.
- B. Pursuant to Title 5 MRSA §10002, and 06-096 CMR 140, the Part 70 license shall not expire and all terms and conditions shall remain in effect until the Department takes final action on the renewal application of the Part 70

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license. An existing source sub Chapter 140 prior to the expir violation of operating without a	mitting a complete renewal application under ration of the Part 70 license will not be in Part 70 license.
(41) New Source Review	
in this Part 70 air emissions license a	Source Review (NSR) requirements summarized and the NSR requirements remain in effect even ons License, A-177-70-J-R/A, expires.
DONE AND DATED IN AUGUSTA, MAI DEPARTMENT OF ENVIRONMENTAL I	*
BY: Marc Allan Robert Corre PATRICIA W. AHO, COMMISSIO	NER NER
The term of this license shall be five (5) years	from the signature date above
PLEASE NOTE ATTACHED SHEET FOR	GUIDANCE ON APPEAL PROCEDURES
Date of initial receipt of application: March Date of application acceptance: April 1	
Date filed with the Board of Environmental	Protection
This Order prepared by Edwin Cousins, Bureau of Ai	r Quality Filed  APR 2 3 2014

State of Maine Board of Environmental Protection